TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1885.

No. 186.

HENRY G. THOMPSON, APPELLANT,

vs.

THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, AND DAVID L. HARRIS.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF NEW YORK.

FILED OCTOBER 26, 1885.

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1 The President of the United States of America to Thomas G. Hall, J. F. Oliver, Samuel Leopold, and David L. Harris, Greeting:

You are hereby commanded that you and each of you personally appear before the judge of the circuit court of the United States of America for the eastern district of New York, in equity, on the first Monday in May, A. D. 1883, wheresoever the court shall then be, to answer a bill of complaint exhibited against you in the said court by Henry G. Thompson, and to do further and receive what the said court shall consider in that behalf; and this you are not to omit under the penalty on you and each of you of two hundred and fifty dollars.

Witness the Hon. Morrison R. Waite, Chief Justice of the Supreme Court of the United States, at the city of Brooklyn, on the 31st day of March, in the year of our Lord one thousand eight hundred and eighty-three.

[L. S.] B. LINCOLN BENEDICT, *Clerk.*

HORACE BARNARD,
Complainant's Solicitor, 98 *B'way, N. Y. City.*

The defendants are required to enter appearance in the above cause in the clerk's office of the court on or before the first Monday of May, 1883, or the bill will be taken "*pro confesso*" against them.

B. LINCOLN BENEDICT, *Clerk.*

HORACE BARNARD, *Complainant's Solicitor.*

Marshal's Return.

I hereby certify that on the 31st day of March, 1883, I personally served the within subpœna *ad res'm* on the within-named defendants, Thomas G. Hall and Samuel Leopold, and on the 4th day of April, 1883, on David L. Harris by showing to each of them this original and at the same time leaving with each a copy thereof; and I further certify that on the 4th day of April, 1883, I served the with-subpœna on the within-named J. F. Oliver by showing to one Mrs. S. Oliver (the mother of J. F. Oliver) this original and at the same time leaving with her a copy thereof, the same being at the place of residence of said J. F. Oliver, No. 161 Hall St., in the city of Brooklyn.

Brooklyn, April 4th, 1883.

A. C. TATE,
U. S. Marshal.

Circuit Court of the United States for the Eastern District of New York, in the Second Circuit.

To the judges of the circuit court of the United States for the eastern district of New York, in the second circuit:

2 Henry G. Thomson, of the town of Milford and State of Connecticut and a citizen of the State of Connecticut, brings

this his bill of complaint against Thomas G. Hall, J. F. Oliver, Samuel Leopold, David L. Harris.

And thereupon your orator complains and says that he is informed and believes that one Moses C. Johnson, then of the said town of Milford and said State of Connecticut and now of Hartford, in said State, is a citizen of the United States and is the true and original inventor or discoverer of a new and useful invention and improvement in cutting pliers, mentioned and fully set forth and described in the drawings, description, and specification annexed to and referred to in the letters patent hereinafter mentioned, and which had not been known or used by others before his said invention and discovery, and which was not at the time of his application for a patent, as hereinafter mentioned, in public use or on sale with his consent or allowance.

And your orator, on information and belief, further shows unto your honors that said Moses C. Johnson, being so as aforesaid the first inventor and discoverer of said improvement in cutting pliers and being also a citizen of the United States, did, on the fifth day of October, one thousand eight hundred and eighty, upon due application therefor, obtain letters patent of the United States for said invention and improvement aforesaid; and having fully and in all respects complied with all the requirements of the law in that behalf and prior to the issuing of the letters patent hereinafter mentioned, to wit, on the — day of June, 1880, at the town of ——, the said Moses C. Johnson, by assignment, duly signed, sealed, and delivered and entered of record in the Patent Office of the United States, assigned all of his right, title, and interest in and
3 to said invention and discovery to said complainant and requested that the said patent might issue to the said complainant. The said letters patent were issued, in accordance with the request of the said Moses C. Johnson, to the said Henry G. Thompson, the complainant herein, as the assignee of his said inventor's whole right therein and thereto before grant of letters patent, as is by statute in such case made and provided, in due form of law, under the seal of the Patent Office of the United States, signed by A. Bell, the then acting Secretary of the Interior, and countersigned by E. M. Marble, the then Commissioner of Patents of the United States, bearing date on said fifth day of October, eighteen hundred and eighty, whereby there was granted and secured to the said Henry G. Thompson (the complainant herein) and his assigns, or intended so to be, for the term of seventeen years from and after the date of said letters patent, the full and exclusive right and liberty of making, using, and vending to others to be used, the said invention and improvement aforesaid, as set forth in said letters patent, here in court ready to be produced as your honors may direct, will more fully and at large appear, and by virtue of which said Henry G. Thompson became and is the sole owner of all the rights and privileges granted and secured or intended so to be granted and secured in and by said letters patent.

And your orator further shows into your honors that, by virtue of the premises, the said Henry G. Thompson became and now is the sole and exclusive owner of said letters patent and invention and

improvement in cutting pliers therein described, and of all rights and privileges granted and secured or intended so to be granted and secured thereby, and that said Henry G. Thompson, this complainant, became the owner thereof as aforesaid. He has invested and expended large sums of money, and has been to great trouble
4 in and about said invention and improvement, and of his rights and interests therein, that he may make the same profitable to himself and useful to the public, and that the public have generally acknowledged and acquiesced in the aforesaid rights of your orator, and your orator believes that he will realize and receive large gains and profits therefrom if infringements by said defendants and their confederates shall be prevented.

Yet the said defendants, well knowing the premises and the rights secured to your orator aforesaid, but contriving to injure your orator aforesaid, and to deprive him, your orator, of the benefits which might and otherwise would accrue unto your orator from said invention and improvements in cutting pliers, and from the sole making and selling of the same, after the issuing of the letters patent as aforesaid and before the commencement of this suit, did, as your orator is informed and believes, without the license or allowance and against the will of your orator and in violation of his rights and in infringement of the aforesaid letters patent and the rights secured thereby, unlawfully and wrongfully and in defiance of the rights of your orator, make, construct, use, and vend to others to be used, cutting pliers made according to and employing and containing said invention and improvement, and that the said defendants still continue so to do, and that they threaten to make the aforesaid invention and improvement in cutting pliers in large quantities, and to supply the market therewith, and to sell the same for the best prices that they can obtain, to the manifest injury of your orator, and all in defiance of the rights acquired by and secured to your orator as aforesaid, and to his great and irreparable loss and injury, and by which he has been and still your orator is being deprived of great gains and profits which your orator might and otherwise would have obtained, but which have been received and en-
5 joyed and are still being received and enjoyed by the said defendants by and through their aforesaid unlawful acts and doings.

And your orator further shows unto your honors, on information and belief, that said defendants have sold large quantities of said improved cutting pliers in accordance with and in imitation of the said invention of your orator, and have a large quantity on hand which they are offering for sale, and have made and realized large profits and advantages therefrom, but to what extent and how much exactly your orator does not know and prays a discovery thereof.

And your orator says that the use of said invention and improvement in cutting pliers by said defendants and their preparation for and avowed determination to continue the same, and their other aforesaid unlawful acts in disregard and defiance of the rights of your orator, have the effect to encourage and induce others to venture to infringe said patent in disregard of the rights of your orator.

And your orator further shows unto your honors that your orators have always stamped upon each improved cutting plier so made and sold by them as aforesaid a certain notice that the same was and is patented, and of the date and number of their letters patent granted therefor.

And your orator further shows unto your honors on information and belief, that the defendants in this suit are engaged in the infringements and unlawful acts above complained of in the city of New York, in the State of New York, but whether said defendants are so engaged in the manufacture, use, and sale of said improvement in cutting pliers as partners or in what other way they are concerned therein your orator does not know and cannot state and prays a discovery thereof by said defendants, and that said defendants
6 may fully and particularly set forth how they and each of them is engaged as aforesaid in said manufacture, use, and sale and how long each of them has been engaged or concerned therein and in what way and to what extent.

And forasmuch as your orator can have no adequate relief except in this court—

To the end, therefore, that the said defendants may, if they can, upon their and the corporal oaths of each of them, show why your orator should not have the relief hereby prayed, and may, upon their and each of their best and utmost knowledge, remembrance, information, and belief, full, true, direct, and perfect answers make to the premises, and to all the several matters hereinbefore stated and charged as fully and particularly as if separately and severally interrogated as to each and every of said matters, and may be compelled to account for and pay to your orator the profits by them and each and all of them acquired, and the damages suffered by your orator from the aforesaid unlawful acts.

And your orator prays that the said defendants and each and every of them, their and each of their servants, agents, attorneys, and workmen and each and every of them, may be restrained and enjoined by the order and injunction of this honorable court from directly or indirectly making, constructing, using, vending, delivering, working, or putting into practice, operation, or use, or in anywise counterfeiting or imitating the said invention or any part thereof, or any improved cutting pliers made in accordance therewith in imitation thereof or like or similar to those which your orator has heretofore made, and that the said defendants may be decreed to pay the costs of this suit, and that your orators may have such other and
7 such further relief as to this honorable court shall seem meet and as shall be agreeable to equity.

May it please your honor to grant unto your orator the writ of injunction, issuing out of and under the seal of this honorable court, in due form of law, commanding, enjoining, and restraining the said defendants and each of them, their servants, agents, attorneys, confederates, and working, and each and every of them, as is hereinbefore in that behalf prayed.

May it please your honors to grant unto your orator the writ of subpœna, issuing out of and under the seal of this honorable court,

directed to the said defendants, commanding them and each of them, by a certain day and under a certain penalty, to be and appear in this honorable court, then and there to answer the premises and to stand to and abide such order and decree as may be made against them and each of them.

And your orator will ever pray, &c.

HENRY G. THOMPSON,
By HORACE BARNARD,
His Attorney-in-Fact, Solicitor, of Counsel for Complainant,
No. 98 Broadway, N. Y.

UNITED STATES OF AMERICA, *District of Connecticut:*

Henry G. Thompson deposeth and saith that he is the complainant in the foregoing bill named, and has read the same and knows the contents thereof.

8 That the said bill is true of his own knowledge, except as to those matters which are therein stated to be on his information and belief, and as to those matters that he believes the same to be true.

HENRY G. THOMPSON.

Subscribed and sworn to before me this 26th day of March, 1883.
JONATHAN INGERSOLL,
United States Commissioner, District of Connecticut.

Endorsed: Bill of complaint. Filed March 31, 1883.

United States Circuit Court, Eastern District of New York.

HENRY G. THOMPSON, Complainant,

vs.

THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS, Defendants.

SIR: Please take notice that I am retained and appear for Thomas G. Hall, J. F. Oliver, Samuel Leopold, and David L. Harris, defendants in the above-entitled action, and demand that all papers in this action be served upon me at my office, No. 10 Pine street, New York city, N. Y.

Very respectfully, AMOS BROADNAX,
Solicitor for Defendants.

To Horace Barnard, Esq'r, compl't's solicitor, 98 Broadway, N. Y. city.

Endorsed: Notice of appearance. Filed April 6th, 1883.

9 United States Circuit Court, Eastern District of New York.
In Equity, on Bill, &c.

HENRY G. THOMPSON, Complainant,

vs.

THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS, Defendants.

The answer of Thomas G. Hall, J. F. Oliver, Samuel Leopold, and David L. Harris, respondents to the bill of complaint of Henry G. Thompson, complainant.

To the honorable the judges of the United States circuit court for the eastern district of New York:

The respondents, now and at all times hereafter, saving and reserving unto themselves all and all manner of benefit and advantage of exceptions that can or may be taken or had to the many errors, uncertainties, insufficiencies, and imperfections in the said bill of complaint contained, for answer thereto, or to so much or such parts thereof as these respondents are advised it is material or necessary for them to make answer to, answering, say:

I. They deny that said Moses C. Johnson, mentioned in said bill of complaint, was the first and original inventor of any new and useful invention of an improvement in cutting pliers such as are described in the letters patent of the United States No. 232,975, dated October 5th, 1880, and mentioned in said bill of complaint.

10 II. They admit, upon information and belief, that letters patent of the United States No. 232,975, dated October 5, 1880, were granted to said Moses C. Johnson for certain alleged invention of an improvement in cutting pliers, and that the same were issued to the said Henry G. Thompson, as assignee of said Johnson; but these defendants deny that said Moses C. Johnson was the first or original inventor of the whole or any part of the invention described, illustrated, or claimed in said letters patent, and allege that said Moses C. Johnson and Henry G. Thompson surreptitiously obtained said letters patent in fraud of the rights of these respondents, as hereinafter more fully set forth.

That said Johnson not being the first and original inventor of the whole or any part of the invention described, illustrated, and claimed in and by said letters patent, and having surreptitiously obtained said letters patent, as aforesaid, these respondents deny that said letters patent can confer upon said Johnson, his heirs and assigns, any legal, equitable, or exclusive right to the same.

III. These respondents have been informed, but do not know, that said Johnson assigned said alleged invention and letters patent to said Henry G. Thompson, and cannot therefore admit or deny the same, and insist that complainant make strict proof thereof. But these respondents, upon information and belief, allege that said Thompson, if he did obtain said assignment of said Johnson, as alleged in said bill of complaint, obtained the same through covin

and with the intention of injuring and defrauding these respondents, as hereinafter more fully set forth.

IV. Respondents deny that said invention has not been known and used by others before the said application of said Johnson for letters patent for the same, and they deny that said invention
11 was not in public use and on sale with the consent and allowance of said Johnson before his said application for said patent. But these respondents allege, upon information and belief, and declare the fact to be, that long before the date of said application for said patent as many as twenty-five or thirty thousand of said cutting pliers were publicly made, sold, and used with the knowledge and consent of said Johnson and without any objection or pretense on his part that he claimed to be the inventor of said pliers or any part thereof, or that he intended to apply for a patent for the same.

V. Respondents, upon information and belief, deny that said Henry G. Thompson has made any effort to introduce said invention in public use, and they deny that he has expended large sums of money in and about said patent and invention for that purpose, and they deny that he has ever made or caused to be made any of said cutting pliers, and they deny that the public has acquiesced in his pretended right to said patent and invention.

VI. Respondents deny that they or either of them have in any way violated, invaded, or infringed said patent or any legal or equitable right of said complainant, and they deny that they have in any way wronged or injured him.

VII. These defendants, further answering, deny that they or either of them, as individuals, have made, sold, or used any cutting pliers substantially such as are described, illustrated, or claimed in and by said letters patent, but these respondents show to this honorable court that they are trustees and directors of a certain corporation created, organized, and existing under and by virtue of the laws of the State of New York, and known as the "Interchangeable Tool Company," and having its principal place of business in the city of New York.

12 That said corporation was organized in August, 1878, for the purpose of manufacturing cutting pliers or nippers, under letters patent of the United States granted to Thomas G. Hall, one of the respondents herein, and which letters patent are No. 209,677 and dated November 5th, 1878, said company being organized for the purpose of manufacturing said pliers or nippers after the invention thereof, but before the patent was issued for the same.

That before said patent was issued, as said Hall alleges of his own knowledge, and as the other respondents are informed and believe, said Hall invented certain improvements upon his said pliers, and which said improvements said Hall thereupon immediately described and explained to the officers of said company.

That thereupon said company caused a model of said nippers or pliers to be made embracing and including said improvements.

That said Moses C. Johnson, being reputed to be a skillful workman, was employed to make said model nipper or pliers for said company.

That said Johnson did thereupon, while in the employ of said company and under the direction of said Thomas G. Hall, make said model nipper for said company.

That said Johnson went in the employ of said company on or about the 20th of April, 1879, in the city of New York, and was employed by said company, together with many other mechanics, toolmakers, and machinists, to manufacture said cutting pliers.

That said Johnson continued in the employ of said company, in the manufacture of said pliers, from said 20th day of April,
13 1879, until May 1st, 1880, during which time said company manufactured and sold upwards of thirty thousand of said cutting pliers with the knowledge and consent of said Johnson, and without any objection upon his part, and without notice from him or from any one in his behalf that he claimed to be the inventor of the whole or any part of said cutting pliers or that he intended to apply for a patent for the same.

VIII. Said respondent, Thomas G. Hall, of his own knowledge, and all the other respondents hereto upon information and belief, insist that said Thomas G. Hall was the first and original inventor of said original cutting pliers and of said improvements thereon, and that the said Thomas G. Hall assigned to said Interchangeable Tool Company the whole of said original letters patent and invention for said cutting pliers, dated November 5th, 1878, immediately upon the issuing thereof, and also the whole of said improvements upon said cutting pliers, thus by law vesting in the said company the sole and exclusive right to make, use, and vend said cutting pliers. And these respondents insist that said company has now and has had ever since the granting of said original patent to said Thomas G. Hall the sole and exclusive right to manufacture, sell, and use the same, together with all of said improvements thereon.

IX. And these respondents, further answering, say that said Moses C. Johnson, after being in the employ of said company for a period of one year as aforesaid, was dismissed from the service of said company for habitual drunkenness, and that said Henry G. Thompson, immediately upon the dismissal of said Johnson, confederated, colluded, and conspired with said Johnson and one Augustus Gustam, as respondents are informed and believe, and with the intention of wronging and injuring said company, and these respondents
14 inveigled, persuaded, and induced said Johnson to falsely claim that he was the first and original inventor of said improvements in cutting pliers and to apply for a patent therefor, and to sell and assign his said pretended claim to said invention to the said Henry G. Thompson, the complainant herein; that said Moses C. Johnson, being poor and of dissipated and intemperate habits, and being greatly in need of money, did for a merely nominal consideration, as respondents are informed and believe, upon the solicitation of Henry G. Thompson, and upon his promises of future reward to said Johnson, as respondents are informed and believe, without the knowledge of said Thomas G. Hall, or of said company, or of these respondents, secretly made application for a patent for said improvements in cutting pliers, falsely alleging and swearing that

he was the first and original inventor thereof, and did upon such application, without the knowledge of said Hall, or of said company, or of these respondents, surreptitiously obtain said patent, dated October 5th, 1880, and numbered 232,975, for said invention of said Hall, and of an improvement upon his own nipper, patented, as aforesaid, November 5th, 1878.

That thereupon the said Thomas G. Hall, being the first and original inventor of said improvements upon his said cutting pliers, as respondents are informed and believe, and having previously obtained a patent for the same in France, did thereupon, immediately upon being informed that a patent had been surreptitiously obtained by said Thompson, as the assignee of said Johnson, for his (Hall's) improvements upon his said cutting pliers, file an application in the United States Patent Office for a patent for said invention on behalf of said company; that thereupon an interference was declared in the Patent Office between the said patent so granted to said Thompson, as assignee of said
15 Johnson, and said application of said Hall, according to the statute in such cases made and provided; that the object of said interference is to determine, as far as the Patent Office can determine, whether said Johnson or said Hall is the true, first, and original inventor of said improvement in cutting pliers, and whether said Hall shall not also have a patent for said invention, as provided by law; that said interference is still pending and undecided in the said Patent Office, and the question is still undetermined whether said Thompson, as the assignee of said Johnson, has any right or title to said patent.

Wherefore these respondents insist and submit that said Thompson ought not and cannot maintain this action.

And these respondents, further answering, say, upon information and belief, that, in view of the state of the art at the time said patent was applied for by said Johnson, and especially as embodied in said cutting nippers of said Hall, patented November 5th, 1878, as aforesaid, and as afterwards improved by him as aforesaid, none of the parts, additions, or combinations of parts falsely claimed by said Johnson as his invention are of sufficient importance to support a patent, and are not in contemplation of law *or* patentable invention, and that all of the parts and combination of parts composing said improved cutting pliers described, illustrated, or claimed in said patent to said Thompson, as assignee of said Johnson, of sufficient importance to support a patent are the invention of said Thomas G. Hall, and that said Moses C. Johnson, conspiring and colluding with said Thompson, surreptitiously obtained a patent as aforesaid for that which was in fact invented by said Hall, and which said Hall was diligently perfecting and patenting, both in Europe and in the United States, and had already patented in France, as
16 aforesaid, and which French patent is dated February 20th, 1880, and numbered 135,176.

And these respondents, further answering, say that if, upon investigation of all the matters and things herein alleged and charged,

this honorable court is of the opinion that said patent is good and valid in law, then respondents insist that said company has good right and lawful authority to make, use, and sell said pliers under a license impliedly given to it by said Johnson growing out of the continual manufacture, use, and sale of said pliers for upwards of one whole year, with the knowledge and consent of said Johnson, as an employee of said company, before he applied for said patent, and without objection on his part, and without the least claim or intimation that he pretended to be the inventor of said improvement, or that he intended to apply for a patent for the same.

And these respondents, further answering, insist that said Moses C. Johnson was not the first and original inventor or discoverer of any substantial or material part of said improved cutting nipper.

And these respondents, further answering, insist that said complainant is not entitled to an injunction, nor any account of profits, nor any relief as prayed for in said bill of complaint, without this, that any other cause, matter, or thing material or necessary for these respondents to make answer unto and not herein and hereby sufficiently answered, confessed, traversed, and avoided or denied is true to the best of the knowledge, remembrance, and belief of these respondents; all of which matters and things these respondents are ready and willing to aver, maintain, and prove as this hon-
17 orable court may direct, and they pray to be hence dismissed with their reasonable costs and charges in this behalf most wrongfully sustained.

THOMAS G. HALL.
SAMUEL LEOPOLD.
J. F. OLIVER.
DAVID L. HARRIS.

AMOS BROADNAX,
Solicitor and of Counsel with Defendants.

UNITED STATES OF AMERICA.

SOUTHERN DISTRICT OF NEW YORK, } ss:
City, County, & State of New York, }

Thomas G. Hall, J. F. Oliver, Samuel Leopold, and David L. Harris, the above-named respondents, being severally sworn, each deposes and says that he is one of the respondents named in the foregoing answer; that he has read the same and knows the contents thereof, and that the said answer is true of his own knowledge, except as to those matters stated to be alleged on information and belief, and that as to those matters he believes it to be true.

THOMAS G. HALL.
SAMUEL LEOPOLD.
J. T. OLIVER.
DAVID L. HARRIS.

Sworn to and subscribed before me this 19th day of June, A. D. 1883.

[SEAL.] WM. H. BROADNAX,
Notary Public, Kings Co., N. Y.

Certificate filed in New York Co., N. Y.

Endorsed: Answer. Filed June 27th, 1883.

18 U. S. Circuit Court, Eastern District of New York.

HENRY G. THOMPSON, Complainant,
vs.
THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS, Defendants.

19 The replication of Henry G. Thompson, complainant, to the answer of Thomas G. Hall, J. F. Oliver, Samuel Leopold, and David L. Harris, defendants.

This repliant, saving and reserving unto himself, now and at all times hereafter, all and all manner of benefit and advantage of exception which may be had or taken to the manifold insufficiencies of said answer, for replication thereunto says that he will aver, maintain, and prove his said bill of complaint to be true, certain, and sufficient in law to be answered unto, and that the said answer of the said defendants is uncertain, untrue, and insufficient to be replied to by this repliant, without this, that any other matter or thing whatsoever in the said answer contained material or effectual in the law to be replied thereto, and not herein and hereby well and sufficiently replied unto, confessed or avoided, traversed or denied, is true; all which matters and things this repliant is and will be ready to aver, maintain, and prove as this honorable court shall direct, and humbly prays as in and by his said bill he has already prayed.

HORACE BARNARD,
Complainant's Solicitor and of Counsel,
98 *Broadway, New York City.*

Endorsed: Replication. Filed July 14, 1883.

20 United States Circuit Court, Eastern District of New York.
In Equity.

HENRY G. THOMPSON
vs.
THOMAS E. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS.

It is hereby stipulated and consented that Henry E. Taintar, counsellor-at-law, of Hartford, Connecticut, shall be appointed special examiner to take the testimony of witnesses in this cause in Hartford aforesaid, and that Julius Twiss, counsellor-at-law, of New

this honorable court is of the opinion that said patent is good and valid in law, then respondents insist that said company has good right and lawful authority to make, use, and sell said pliers under a license impliedly given to it by said Johnson growing out of the continual manufacture, use, and sale of said pliers for upwards of one whole year, with the knowledge and consent of said Johnson, as an employee of said company, before he applied for said patent, and without objection on his part, and without the least claim or intimation that he pretended to be the inventor of said improvement, or that he intended to apply for a patent for the same.

And these respondents, further answering, insist that said Moses C. Johnson was not the first and original inventor or discoverer of any substantial or material part of said improved cutting nipper.

And these respondents, further answering, insist that said complainant is not entitled to an injunction, nor any account of profits, nor any relief as prayed for in said bill of complaint, without this, that any other cause, matter, or thing material or necessary for these respondents to make answer unto and not herein and hereby sufficiently answered, confessed, traversed, and avoided or denied is true to the best of the knowledge, remembrance, and belief of these respondents; all of which matters and things these respondents are ready and willing to aver, maintain, and prove as this hon-
17 orable court may direct, and they pray to be hence dismissed with their reasonable costs and charges in this behalf most wrongfully sustained.

THOMAS G. HALL.
SAMUEL LEOPOLD.
J. F. OLIVER.
DAVID L. HARRIS.

AMOS BROADNAX,
Solicitor and of Counsel with Defendants.

UNITED STATES OF AMERICA.

SOUTHERN DISTRICT OF NEW YORK, } ss:
City, County, & State of New York, }

Thomas G. Hall, J. F. Oliver, Samuel Leopold, and David L. Harris, the above-named respondents, being severally sworn, each deposes and says that he is one of the respondents named in the foregoing answer; that he has read the same and knows the contents thereof, and that the said answer is true of his own knowledge, except as to those matters stated to be alleged on information and belief, and that as to those matters he believes it to be true.

THOMAS G. HALL.
SAMUEL LEOPOLD.
J. T. OLIVER.
DAVID L. HARRIS.

Sworn to and subscribed before me this 19th day of June, A. D. 1883.

[SEAL.] WM. H. BROADNAX,
Notary Public, Kings Co., N. Y.

Certificate filed in New York Co., N. Y.

Endorsed: Answer. Filed June 27th, 1883.

18 U. S. Circuit Court, Eastern District of New York.

HENRY G. THOMPSON, Complainant,
vs.
THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS, Defendants.

19 The replication of Henry G. Thompson, complainant, to the answer of Thomas G. Hall, J. F. Oliver, Samuel Leopold, and David L. Harris, defendants.

This repliant, saving and reserving unto himself, now and at all times hereafter, all and all manner of benefit and advantage of exception which may be had or taken to the manifold insufficiencies of said answer, for replication thereunto says that he will aver, maintain, and prove his said bill of complaint to be true, certain, and sufficient in law to be answered unto, and that the said answer of the said defendants is uncertain, untrue, and insufficient to be replied to by this repliant, without this, that any other matter or thing whatsoever in the said answer contained material or effectual in the law to be replied thereto, and not herein and hereby well and sufficiently replied unto, confessed or avoided, traversed or denied, is true; all which matters and things this repliant is and will be ready to aver, maintain, and prove as this honorable court shall direct, and humbly prays as in and by his said bill he has already prayed.

HORACE BARNARD,
Complainant's Solicitor and of Counsel,
98 *Broadway, New York City.*

Endorsed: Replication. Filed July 14, 1883.

20 United States Circuit Court, Eastern District of New York.
In Equity.

HENRY G. THOMPSON
vs.
THOMAS E. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS.

It is hereby stipulated and consented that Henry E. Taintar, counsellor-at-law, of Hartford, Connecticut, shall be appointed special examiner to take the testimony of witnesses in this cause in Hartford aforesaid, and that Julius Twiss, counsellor-at-law, of New

Haven, Connecticut, shall be appointed special examiner to take the testimony of witnesses in this cause in New Haven aforesaid, all under the 67th rule of the Supreme Court as amended.

New York, Sept. 10th, 1883.

AMOS BROADNAX,
Defendants' Solicitor.

HORACE BARNARD,
Complainant's Solicitor.

Testimony to be taken before Henry E. Taintar, under above stipulation, on Wednesday, the 12th day of September, 1883, at 10 a. m., at the office of said H. E. Taintar, in the city of Hartford aforesaid.

Above notice hereby accepted.
New York, Sept. 10, 1883.

AMOS BROADNAX.

21 Circuit Court of the United States, Eastern District of New York.

HENRY G. THOMPSON, Complainant,

vs.

THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS, Respondents.

Testimony taken on the part of the complainant under the 67th rule of practice, as amended, at Hartford (No. 333 Main street), in the State of Connecticut, before Henry E. Taintar, special examiner, on Wednesday, the 12th day of September, A. D. 1883, at 10 o'clock a. m.

Present: Horace Barnard, Esq., counsel for complainant; Amos Broadnax, Esq., counsel for respondents.

Complainant's counsel offers in evidence the certified copy of the assignment of Moses C. Johnson to Henry G. Thompson, and the same is marked Complainant's Exhibit 1st, H. E. T., special examiner.

Complainant's counsel offers in evidence letters patent of the United States No. 232,975, issued to Henry G. Thompson, dated October 5th, 1880, and the same are marked Complainant's Exhibit 2d, H. E. T., special examiner.

Complainant's counsel offers in evidence a pair of nippers stamped "Hall Patent, No. 2, Nov. 5, '78," and the same are marked Complainant's Exhibit 3rd, H. E. T., special examiner.

22 It is admitted by respondents that they have manufactured this nipper, Exhibit 3rd, and similar nippers containing similar combinations since July, eighteen hundred and eighty, and are still manufacturing the same, in the city of New York.

Complainant's counsel offers in evidence certified copy of United States letters patent No. 209,677, dated Nov. 5, 1878, granted to T.

G. Hall, and the same is marked Complainant's Exhibit 4th, H. E. T., special examiner.

The witness not appearing, the hearing is adjourned till Thursday, September 27, 1883, at 10 a. m.

United States Circuit Court, Eastern District of New York.

HENRY G. THOMPSON
against
THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS.

It is hereby stipulated that the accompanying copy of the testimony taken on behalf of Moses C. Johnson, the copy of the testimony taken on behalf of Thomas G. Hall, and the certified copy of the decision of S. M. Marble, Commissioner of Patents, in the interference between said Thomas G. Hall and Moses C. Johnson, relating to the matters involved in this action, may be offered
23 and shall be received in lieu and place of the full official record as evidence herein, and the same shall be marked as Complainant's Exhibit "Interference Record," subject to such legal objections as either party may urge to the contents of such record.

Dated New York, September 26, 1883.

HORACE BARNARD,
Complainant's Solicitor.
A. M. BROADNAX,
Defendants' Solicitor.

Circuit Court of the United States, Eastern District of New York.

HENRY G. THOMPSON
against
THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS.

It is hereby stipulated and agreed that Horace Barnard, complainant's solicitor, may transmit to Henry E. Taintor, special examiner herein, at his office, in the city of Hartford, Connecticut, the printed testimony taken in the interference case of Thomas G. Hall and Moses C. Johnson, relating to the matters involved in this action, together with a certified copy of the decision of E. M. Marble, Commissioner of Patents, thereon, in time to be received by said Henry E. Taintor, special examiner, on September 27th, 1883, at 10 o'clock in the morning of that day, to which time and place the taking
24 of testimony herein was adjourned, and that such transmission and receipt by said Taintor shall constitute and be an offer of the same in evidence in this case by complainant, and the same shall be marked therein by said Taintor as Complainant's Exhibit "Interference Record," and thereupon the taking of testi-

mony before said Taintor shall be closed without the personal attendance of either of the solicitors for the parties herein.

HORACE BARNARD,
Compl't's Solicitor.
A. M. BROADNAX,
Defendants' Solicitor.

THURSDAY, *September 27th*, 1883—10 a. m.

Met pursuant to adjournment.

No personal attendance by either party or the solicitor of either.

The printed testimony taken in the interference case of Thomas G. Hall and Moses C. Johnson, relating to the matters involved in this action, together with a certified copy of the decision of E. M. Marble, Commissioner of Patents, thereon, were received by express and the same were offered in evidence under and in accordance with stipulation hereto annexed. The same consist of two printed pamphlets and one manuscript document, and are marked Complainant's Exhibit "Interference Record, H. E. T., special examiner," on each.

Thereupon the taking of testimony was closed.

I, Henry E. Taintor, special examiner, duly appointed, do hereby certify that on the 12th day of September, 1883, at 10 o'clock a. m., I was attended at my office, No. 333 Main street, in Hartford, Conn., by counsel as hereinbefore stated, and that the Exhibits Complainant's 1st, 2d, 3d, and 4th were then and there offered in evi-
25 dence; that on the 27th day of September, 1883, I received the further exhibit marked Complainant's Exhibit "Interference Record," and marked the same.

I further certify that I am not of counsel to either party in the case in which this testimony is to be used and not connected in any way with either party.

Witness my hand at said Hartford this 27th day of Sept., 1883.

HENRY E. TAINTOR,
Special Examiner.

Stipulation.

United States Circuit Court, Eastern District of New York. In Equity.

HENRY G. THOMPSON
vs.
THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS.

It is hereby stipulated and agreed between counsel for the respective parties that J. Edgar Bull, a notary public in and for the city and county of New York, be, and the same hereby is, appointed special examiner to take the testimony and proofs of such witnesses as complainant's counsel may call and examine in the city of New

York in rebuttal, and that no exception will be — to the same
26 because they were not put in before a standing examiner of this court nor within the time limited by law.

AMOS BROADNAX,
Def'ts' Solicitor.
HORACE BARNARD,
Compl't's Solicitor.

NEW YORK, 20*th June*, 1884—1 p. m.

Testimony of complainant in rebuttal, taken before J. Edgar Bull, as special examiner, in pursuance of 67th rule in equity, as amended, by virtue of the foregoing stipulation.

Parties met pursuant to agreement.

Present: Same counsel.

JAMES M. ADAMS, a witness produced on behalf of complainant, being duly sworn, in answer to interrogatories propounded by Mr. BARNARD, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is James M. Adams; am 51 years of age; I reside at 638 Pacific street, Brooklyn, N Y; by occupation a tool-maker.

Q. 2. How long have you been a tool-maker, and in whose employ were you in the years 1878 and 1879?

A. About twenty years; I was in the employ of J. H. Jencks & Co. in the fall and winter of 1878, and from April 14, 1879, was in the employ of the Interchangeable Tool Company of New York, composed of Thomas G. J. Hall, president; Augustus Gustam, business manager; Mr. David L. Harris, one of the directors; James
27 F. Oliver, and William Q. Judge. I don't remember the other members. I was in the employ of the Interchangeable Tool Company until about February 20th, 1880.

Q. 3. In what capacity were you employed by the Interchangeable Tool Company?

A. Superintendent. I had full charge of the manufacturing of their goods for market; also the getting up of tools and fixtures.

Q. 4. Where was their shop during this time?

A. In the Express Building, in Hudson street, New York; they had two rooms, I think, in the third story front.

Q. 5. Are you acquainted with Moses C. Johnson and Thomas G. Hall, and how long have you known them? State how and where you made their acquaintance.

A. I am. I made the acquaintance of Mr. Johnson in Hartford, Connecticut, about eight years ago. I made the acquaintance of Thomas G. Hall in New York, in the winter of 1878, 1879, in Hudson street.

Q. 6. Were you working with Moses C. Johnson in the shop of J. H. Jencks & Co., in New York, in 1878?

A. Part of the time, in the latter part of 1878.

Q. 7. Was Moses C. Johnson then engaged on any work for

Thomas G. Hall individually or as a representative of the Interchangeable Tool Company; and, if yea, what?

A. He making was a model nipper for the Interchangeable Tool Company.

Q. 8. Did he make that model nipper, and is or is it not shown in drawing annexed to Defendants' Exhibit No. 7, Hall patent of November 5, 1878?

A. He did, and it is.

Q. 9. What sort of cutting nipper was manufactured by the Interchangeable Tool Company when you entered their employ?

A. Hall's compound nipper. The nipper was composed of two jaws, two handles, two plates, steel spring, brass spring block,
28 stop pin, and the lateral pin in each jaw below the cutting edge, and the screws to hold the parts together.

Q. 10. In what did this nipper differ from that shown on the drawing, Defendants' Exhibit No. 7, Hall's patent of November 5, 1878?

A. The exhibit shows no spring block or lateral pin, below the cutting edge of the jaws.

Q. 11. Did the Interchangeable Tool Company make and sell any such nippers; and, if so, how many?

A. None, to my knowledge. When I entered their employ they were making different kinds, each one varying a trifle from the other; some having the lateral pin, others did not.

Q. 12. Did you or not see any nippers or models belonging to said company, Hall, or any other of its officers, at the time you were first employed, which had any gearing pins or other connections between the handles by which the handles and jaws were made to move simultaneously?

A. I did not.

Q. 13. Did you see the model made by Moses C. Johnson for the Interchangeable Tool Company at Jencks & Co.'s after you were employed by the Interchangeable Tool Company; and where, and how often did you see it?

A. I did, at the Interchangeable Tool Company's factory in Hudson street, several times.

Q. 14. While you were in the employ of the Interchangeable Tool Company had Mr. William Q. Judge anything to do with the manufacturing of the nippers?

A. He had not.

Q. 15. Did Judge or Thomas C. Hall ever show you any plan or sketch for improvements on the nipper which was being made when you were first employed?

A. They did not; nor did either of them.

Q. 16. Was anything said to you about making improvements on the nipper then being made and; if so, what and by whom?

A. Nothing.

29 Q. 17. Did you make any suggestions as to any improvements, and to whom did you make them, if any?

A. I did; to Mr. Gustam and Mr. Hall. I proposed to throw out all the inside work with the exception of the spring.

Q. 18. Did you ever make any experiments with a view to improving the nipper then being made by the company; and, if yea, what?

A. I experimented in interlocking the handles so as to make the jaws move simultaneously.

Q. 19. Did or did not the jaws of the nippers then being made by the company move simultaneously?

A. They did not.

Q. 20. How did that affect their utility and sale?

A. They were good for nothing.

Q. 21. Did the company have any on hand that were unsalable for this reason?

A. I never saw more than a dozen manufactured nippers when I went there.

Q. 22. Were the company making and selling many nippers when you went there?

A. They were not. Each man was making a nipper at the vise about as he was a mind, to and the parts would not interchange.

Q. 23. Were you employed to change that mode of manufacture so that the parts would be made to interchange?

A. I was, and according to my judgment.

Q. 24. Did you ever make any model showing your attempt to improve the nipper then made by the Interchangeable Tool Company, and when did you make it?

A. I did, in the spring of 1879. This is the model I refer to.

Model offered in evidence and marked Complainant's Exhibit Johnson's Exhibit D, J. E. B., Sp. Ex'r, 20 June, 1884.

30 Q. 25. Give the dates, as nearly as you can recollect, when this model was commenced and finished.

A. I should say in the month of May, 1879.

Q. —. Did you do all the work on it yourself?

A. I did not; Thomas Connors filed the pieces up to the lines which I laid out, I making the teeth which connects the handle.

Q. 27. Did you receive any suggestions in making this model from Mr. Thomas G. Hall or from any one else?

A. I did not.

Q. 28. Did Mr. Thomas G. Hall ever give you any instructions about making this or any other improvement upon the nippers made by the Interchangeable Tool Company?

A. He did not.

Q. 29. Was Mr. Moses C. Johnson in the employ of the Interchangeable Tool Company at or before you made this model; and, if yea, who employed him, when, and for what purpose?

A. He was. I hired him as tool-maker about the last week in April, 1879.

Q. 30. Was Mr. Moses C. Johnson at this time engaged in attempting to improve the nipper heretofore made by the company?

Question objected to as leading.

A. Not to my knowledge.

Q. 31. Do you not know whether or not Moses C. Johnson at or about the time you made Complainant's Exhibit D made another model showing improvements on the company's nippers?

A. He did afterwards; he was at work on the model at the time, but completed his model after I made mine.

Q. 32. Please examine the model now shown you and state if you know what it is and who made it, and when.

A. It is the model nipper made by Moses C. Johnson in the month of May, or thereabout, 1879.

31 Model offered in evidence and marked Complainant's Exhibit Johnson's Exhibit C, J. E. B., Sp. Ex'r, 20 June, 1884.

Q. 33. How do you know that Johnson made this model, and what was it made for?

A. I told him to make it and I saw him to work on it. I furnished him the brass for the handles.

Q. 34. When you say you told him to make it what words did you use in speaking to him?

A. I told him we must have a new model. Then we talked of some changes; I showed him my Exhibit D; he went on and made the model, and occasionally came for sanction and direction.

Q. 35. What direction did you give him? State the words.

A. I said, "Take that model of mine and change those teeth that interlock the handles, so as to make the interlocking with one operation or one cut."

Q. 36. Did you have anything to make one cut with at that time?

A. We did not.

Q. 37. Then you expected him to invent something to anticipate further operations or cuts, did you not?

Objected to as leading and as instructing the witness.

A. I expected him to make a cutter or mill to do that work.

Q. 38. In addition to making the model?

A. Yes, sir.

Q. 39. What are the jaws of that model made of?

A. Steel from one of the old nipper jaws that were forged previous to my going in their employment.

Q. 40. By what means, if you know, were those forgings given their present shape and size?

A. Mostly by filing and forging. I did not see the forging done.

32 Q. 41. Do you know what part of the jaws was reforged? If any, state.

A. I do. The forging was short at the lips at the head of the spring, and by forging it was lengthened.

Q. 42. What tools were used to give it the present shape?

A. Files mostly.

Q. 44. Did you ever see any nipper or model of a nipper with lips nearly approaching when closed, as in model Complainant's Exhibit C now shown you, before Johnson made this model?

A. I did not. It is the first one I ever saw.

Q. 44. Whose invention was the placing of those lips in that position?

Question objected to, it being impossible for the witness to know whose invention it was.

A. Moses C. Johnson.

Q. 45. State, after examination of this model, whether or not this is the first model you ever saw with the handles interlocked with a projection on one handle working into a depression in the other and whose invention, as far you know, it is.

A. It is the first I ever saw, and it is Moses C. Johnson's invention.

Q. 46. Please explain now what you meant by speaking of making this with "one cut" in contradistinction from the mode of making the connection in Exhibit D.

A. In the Exhibit D it would be necessary to move the handles under the mills several times, whereas in model C once is sufficient. By the mills I mean the tool that cut the shape of the metal that is pressed under them when revolving.

Q. 47. Then it is necessary, is it not, to make mills of such shape as in turn to cut out the required shape from the unformed forging?

33 A. It is.

Q. 48. I now place in your hands Complainant's Exhibit 2, being patent granted to Moses C. Johnson, assignor of Henry G. Thompson, No. 232.975, dated October 5, 1880, and read to you the following claim in reference to the drawing annexed:

"I claim the body composed of the side plates A B, the independent fulcra, 2, 3, 4, 5, for the jaw levers and hand levers, provided with cutting edges and with lips, E, and the hand levers having short arms, G H, and a prong and notch, always in engagement as described, combined with the V-shaped spring, held, as described, by the lips."

Q. 48. Please state, to the best of your knowledge and belief, who is the inventor of the foregoing combination.

A. Moses C. Johnson.

Q. 49. During the time of the making of Complainant's Exhibit Johnson Model C and while you and Johnson were in the employ of the Interchangeable Tool Company, was there any talk among the men in the employ of that company as to who was the inventor of that combination and of those improvements on the old nipper?

Question objected to as incompetent and immaterial.

A. There was among the tool-makers (by Mr. Whittlesay). I don't remember others at this time.

Q. 50. To whom in such talk was the credit of that invention given?

A. Moses C. Johnson.

Q. 51. Did any one dispute it?

A. Not to my knowledge.

Q. 52. Do you know whether the men employed in the Inter-

changeable Tool Company's shop in Hudson street saw Complainant's Exhibit C, Johnson's model, when it was completed?

34 A. Some of them did.

Q. 53. Was it kept at the shop?

A. It was.

Q. 54. Was it used as a model to make other nippers and tools after it, and what tools?

A. It was; all of our mills for forming the nipper.

Q. 55. And were many other nippers made at that shop on that model?

A. A great many; all of the size No. 2 were made on that model up to February, 1880, when they moved to Milford.

Q. 56. Was Mr. Thomas G. Hall, James F. Oliver, Samuel Leopold, or David L. Harris ever in the shop in Hudson street when nippers or tools after Johnson's model were being made; and, if so, how often?

A. Hall, Oliver, and Harris were in there frequently.

Q. 57. Did either of them ever see or examine Complainant's Exhibit C, Johnson's model, at the shop in Hudson street; and, if so, who examined it?

A. They have all seen it, to my knowledge, in that shop in Hudson street. I have seen it in the hands of Hall and Oliver; I should say a good many times.

Q. 58. Did you have any talk at that shop about Johnson's model with Hall, Oliver, or Harris, and what was the talk?

A. I did, with Mr. Harris. After explaining to him the model, he said to me, "Supposing you go on making these nippers and find when they are put together they will not interchange?" I replied, "That never occurred to me." That's all I had with Mr. Harris. I can't swear that I ever showed it — Mr. Harris while talking to him.

Q. 59. Did Mr. Harris admit to you that he had seen this model?

A. I don't remember that he ever did in so many words.

Q. 60. How did you explain the model to him?

A. When it was lying on the bench before us.

Q. 61. Question 58 repeated as to Hall.

35 A. I can't remember the words or phrases used, but Hall always gave us much credit for these improvements.

Q. 62. Did you ever talk with Thomas G. Hall about Complainant's Exhibit C, Johnson's model, when Hall had it in his hands in Hudson street, in 1879, and how often?

A. I have, very often, as the model was being made, and after it was completed.

Q. 63. Was not this the model from which all the Interchangeable Tool Company's nippers, No. 2 size, were made?

A. It was the model.

Q. 64. Was not an extra set of parts made from this model from which dies for forgings and mills were made?

A. The mills were made from the model, Complainant's Exhibit C, Johnson's model, and extra parts were made for dies from which the forgings were made according to this model.

Q. 65. Were these made by any one man and by whom?

A. By Mr. Moses C. Johnson principally.

Q. 66. Do you know whether Thomas G. Hall knew that these were made by Johnson?

A. He knew that he made the model and the extra part.

Examination adjourned until Saturday, 21st June, 1884, at 11 a. m., same place.

21 JUNE, 1884—11 a. m.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Examination of Mr. ADAMS continued:

Q. 67. Did he know that the mills were made according to Johnson's model?

36 A. He did.

Q. 68. How long were the mills made according to Johnson's model used by the Interchangeable Tool Co.?

A. As long as I was with them, until the 20th of February, 1880.

Q. 69. Were there any changes made in these mills during that time?

A. Not to my knowledge.

Q. 70. Would you have known it if there were any changes made during that time?

A. I should.

Q. 71. Cannot you answer question 69 more positively?

A. There was not.

Q. 72. Were there any changes in the length of the lip of the nippers, No. 2 size, made while you were with the company?

A. There was none.

Q. 73. How many No. 2 nippers were made by the Interchangeable Tool Co., according to Johnson's model, while you were with the company?

A. I have no means of knowing; can only give an estimate—say twenty-five to thirty thousand, more or less.

Q. 74. Mr. Thomas G. Hall says in his direct testimony, in answer to question 18, that between December 1, 1879, and January 1st, 1880, the company completed a set of milling-machine fixtures, which have been used exclusively since that time in milling the No. 2 jaws, which would mill the projection over the head of the spring shorter than that shown in Complainant's Exhibit 3d. Do you remember what those fixtures were? If so, state.

A. I do. They were fixtures for milling the jaws, and would hold twelve jaws at a time.

Q. 75. How did they differ from the milling fixtures used before?

A. The old fixtures milled only one jaw each time.

37 Q. 76. Did the new fixtures change in any way the length of the projection or lips on the jaws?

A. They did not and could not.

Q. 77. Did or did not the length of lip or projection depend on the shape of the mills?

A. It did.

Q. 78. And these, you say, were unchanged, do you?

A. I do.

Q. 79. In answer to question 19 of Hall's direct testimony, which question reads as follows:

"And ever since that, I understand you, the projection or lip over the head of the spring in the No. 2 nipper has been made from $\frac{1}{32}$ to $\frac{1}{64}$ of an inch shorter, as you have explained?" Said Hall says: "It has."

I now ask you if that answer to that question is true?

A. It is not.

Q. 80. Mr. Thomas G. Hall, to direct questions 23 and 24, answers that the company did not continue to manufacture the nipper as it appears in Complainant's Exhibit 4, because the nipper did not work satisfactorily, and that the defect consisted in the want of uniformity in the movement of the jaws. What, if any, experiment was made to remove this defect, and by whom was it made, and at whose suggestion, if any?

A. There were two experiments made at the shop in Hudson street by myself in the month of May, 1879. The first one was interlocking the handles by inserting several pins in each handle opposite the fulcra.

Witness is handed Defendant's Exhibit Nipper Handles, and, after examination, continues:

I should say these are the handles in which I inserted the pins by drilling holes and driving the pins in. No one suggested it to me. The second experiment was made by me. I took two brass plates and made the handles with a projection opposite the fulcra, in which I filed several teeth. This is Complainant's Exhibit D in this case. I received no suggestion in regard to it from any one.

38

Q. 81. What was the first model nipper in which you ever saw a projecting lip like that in Complainant's Exhibit C, Johnson's model?

Question objected to on the ground that he has already answered it.

A. Johnson's model, Complainant's Exhibit C.

Q. 82. What was the first model nipper in which you saw the V spring held in place by the projecting lip, without block or screw fastening?

A. Johnson's model, Complainant's Exhibit C.

Q. 83. Do you remember seeing at the shop in Hudson street a model of the No. 2 nipper made by Moses C. Johnson when in the employ of Jencks & Co.?

A. I do.

Q. 84. Had that model any projecting lip for holding the V spring in place without the block and screw fastening?

A. It had not.

Q. 85. How was the spring held in place in the Jencks model?

A. I don't remember now of seeing the spring in the model.

Q. 86. Did you take the Jencks model apart or see it apart?

A. I did not take it apart. I saw it apart.

Q. 87. Were there any holes through or in the side plate where the point of the spring should rest showing where screws for holding it in place would come if used, or for holding a block for the spring?

A. I think there was a hole in the plate for the screw to hold the brass block, which block held the spring.

Q. 88. Did you see any alterations made in that Jencks model by any workman in Hudson street? And, if so, state fully what, when made, and by whom.

A. I don't remember of seeing any.

39 Q. 89. Would you remember if any alterations had been made in that Jencks model by any workman in the shop in Hudson street during your employment by the Interchangeable Tool Company; and, if so, why?

A. I should; because I had charge of the whole mechanical work in that shop. I directed the workmen and gave them their jobs.

Q. 90. Did you see any model nipper or handle of any model nipper with a fulcra and notch interlocking gear between, opposite the fulcra, before you saw it in Complainant's Exhibit C, Johnson's model?

A. I did not.

Q. 91. Would you have seen or known of it if such a thing had existed in the shop at Hudson street?

A. I should.

Q. 92. How often and for what lengths of time was Thomas G. Hall in the shop in Hudson street?

A. His visits for the first three or four months were frequent, perhaps averaging once a week. He stayed from an hour to two hours each time. In the fall they were more frequent.

Q. 93. Did you ever see Thomas G. Hall working on a model for a nipper at that shop?

A. Not after I was in their employ.

Q. 94. Did Mr. Thomas G. Hall ever show you any model nipper, or jaws of nipper, or handles of a nipper with lips in the jaws, or gearing between the handles, that he claimed to have made?

A. Never, sir.

Q. 95. Did Mr. Thomas G. Hall direct you to put the pins in the Defendants' Exhibit Nipper Handles, which, in answer to direct question 61, he says was the first practical thing done at the factory of the Tool Company at Hudson street?

A. He did not.

Q. 96. What model of the No. 2 size nipper was used by the Interchangeable Tool Company as a standard for making the gauges and tools for manufacturing the nippers?

A. Johnson's model, Complainant's Exhibit C.

40 Q. 97. Was the Jencks model used for those purposes?

A. It was not.

Q. 98. Were there any templates made; if yes, by whom and after what model?

A. A few templates were made for the jaws; I believe there were none made of the handles, but I wont say; were made by Mr. Whittlesey, E. A., I think; made after Johnson's model, Complainant's Exhibit C.

Q. 90. Who was E. A. Whittlesey and what was his business in the shop of the Interchangeable Tool Company?

A. Was a tool-maker in the employ of the company, and worked the greater part of the time on the mills.

Adjourned to June 27, 1884, at 1 p. m.

NEW YORK, 27*th June*, 1884—1 p. m.

Parties met pursuant to adjournment.

Present: Same counsel, same witness.

Direct examination of Mr. ADAMS continued:

Q. 100. I put in your hands Defendants' Exhibit No. 4, nipper jaws, and ask you if you remember them as forming parts of a nipper of which Defendants' Exhibit Nipper Handles formed a part?

A. I have no way to identify them.

Q. 101. Did the jaws which formed part of the nipper, — which Defendants' Exhibit Nipper Handles formed a part, have a cut making a short projection or lip, as shown in Defendants' Exhibit No. 4, nipper jaws?

A. I do not remember such a cut.

Q. 102. Would you remember if those jaws had such a cut at that time?

41 A. I can't say that I should.

Q. 103. Did you put that nipper together of which Defendants' Exhibit Nipper Handles formed a part; and, if yea, would you not remember how the spring was held in place?

Objected to as outrageously leading.

A. I want to correct my answer with regard to these notches. I think I filed those notches myself and put the spring in as an experiment to test the nipper with the pin connection in the handles. I did put the nipper together. Side-plate Defendants' Exhibit No. 5, side-plates, are the same size as the plates I used in this nipper; the holes in the side plates are in one of them for holding the screw that held the block that held the spring; one hole in the other side plate is tapped for that screw to enter; the small hole in same plate I don't remember the use of.

Q. 104. What were the holes for which are in Defendants' Exhibit No. 4, nipper jaws, just when you filed the cut?

A. I don't remember.

Q. 105. Did you never see a nipper with a pin or bar connecting those two holes?

Objected to as leading; witness has already stated that he didn't know what those holes were for.

A. I have seen a pin connecting two jaws, but not this size; they were No. 2.

Q. 106. Will you tell all you know about that No. 2 so connected?

A. At the commencement of my employment by the Interchangeable Tool Company Mr. Gustam gave me a pair of No. 2 nippers, saying it was the most perfect pair the company had; that nipper contained this pin, which was inserted to control the jaws in their movements.

42 Answer objected to as mere hearsay and immaterial.

Q. 107. Did Mr. Thomas G. Hall say anything to you about it, and what?

A. He did. He said he put it in to help control the action of the jaws; that's all I remember now.

Q. 108. Did Thomas G. Hall ever show you any nipper jaws made by himself with a notch or lip to hold the ends of the spring?

Objected to as immaterial.

A. He did not.

Q. 109. Did said Hall ever show you any nippers made by himself—any sketch made by himself or others—or describe to you any mode of regulating the motion of a nipper by any gearing between the handles?

Objected to as leading and immaterial.

A. He never did.

Q. 110. You have testified that Mr. Thomas G. Hall "always gave us much credit for these improvements." Where and when did he give you this credit?

A. In the shop in Hudson street, in the fall of 1879.

Q. 111. Did Mr. Hall, in the fall of 1879, speak to you about these improvements more than once; and, if so, how often?

Objected to as leading and prompting the witness.

A. Several times.

Q. 112. Repeat as much as you can of his words or the substance of his conversation. Did or did he not mention Johnson, and how?

Same objection.

43 A. "You are doing splendidly; not only have we got the best nipper in the world, but we are paying all expenses and for the new tools in progress. The company are very much pleased with your management." Don't remember his mentioning Johnson's name in this connection.

Q. 113. Did not Mr. Hall know that Johnson was the author of these improvements?

Objected to as outrageously leading and incompetent.

A. He did.

Q. 114. How did he know that fact?

A. In conversation with me he always gave Johnson the credit, not in so many words, but in substance. I always gave Johnson the credit in talking with Mr. Hall.

Q. 115. Was there any other way in which Hall knew that fact? Did he know that M. C. Johnson was working on those improvements?

Objected to as leading and prompting the witness.

A. I was about to answer that Mr. Hall had seen Mr. Johnson at work on those improvements at the shop.

Q. 116. Is that all?

A. That is.

Q. 117. Had or had not Mr. Hall seen the perfected model, Complainant's Exhibit C; and, if yea, where had he seen it?

A. He had, at the shop in Hudson street.

Q. 118. Do you remember at what part of the shop he saw it?

A. At Mr. Johnson's work bench.

Q. 119. Did you see Mr. Johnson making any alterations in the Jencks model?

44 A. I did not.

Q. 120. Were any alterations made in that Jencks model to your knowledge?

A. There was none.

Q. 121. When and where did you see that Jencks model last and in what condition was it?

A. Summer of 1879, at the shop in Hudson street; the parts were separated and lying on the bench.

Q. 122. Enumerate these parts.

A. Two jaws and two handles; two plates. That is all I remember.

Q. 123. Do you know what became of them?

A. I do not.

Q. 124. Have you ever seen any of them since?

A. I have not.

Q. 125. You have examined the nipper which I put in your hands, stamped "Hall's patent, November 5, 1878," and also the nipper, Complainant's Exhibit 3d. What, if any, is the difference between them?

A. They have the appearance of being the same.

Q. 126. Do the lips in both nippers approach equally near when the nipper is closed in cutting?

Question objected to, as the nippers speak for themselves.

A. I should say they did from observation, without a magnifying glass.

Nipper offered in evidence and marked Complainant's Exhibit 5th, J. E. B., Spec. Ex'r, 27th June, 1884.

Defendants' counsel admits that this nipper was made by the Interchangeable Tool Company.

Complainant's counsel calls the attention of the magistrate
45 to the answer of Thomas G. Hall to X Q. 308, in which he (Hall) says, "The present stamp is Hall's pat., Nov. 5, 1878."

Q. 127. What is the stamp on Complainant's Exhibit 5th?
A. Hall's patent, Nov. 5, '78.
Q. 128. Do you know William Q. Judge?
A. I do.
Q. 129. Were you ever at his office?
A. I was once.
Q. 130. Who did you meet there?
A. Mr. Judge and, I think, Charles Oliver and Mr. Gustam.
Q. 131. Were you ever there with Mr. Thomas G. Hall?
A. Never was.
Q. 132. Was any sketch of any nipper with a gearing between the handles ever shown you at that office by any one?
A. There was none.
Q. 133. Was any sketch whatever shown you there?
A. None whatever.
Q. 134. Did Moses C. Johnson ever make a drawing of a completed nipper with his improvement?
A. He did, of No. 4 nipper; 7-inch.
Q. 135. When did he make it?
A. In the fall of 1879.
Q. 136. What was done with it?
A. Do not know.
Q. 137. Did you ever see it in the hands of Thomas G. Hall?
A. Not that I recollect.
Q. 138. Look at Defendants' Exhibit No. 1, Johnson's drawing, and say whether you ever saw it before; when, where, and when you saw it last.
A. I have seen it before, at New Haven, in December, 1881; that was the last time I saw it.
Q. 133. Was that drawing ever used in the shop in Hudson street?
46 A. It was not. I wish to make a correction in regard to this drawing. I am not positive whether this is the identical drawing I then saw or whether it was a drawing of the 5-inch or No. 2 nipper.
Q. 140. Who had possession of it in New Haven then?
A. Mr. Broadnax.

Counsel for defendants notes on the record that he did not have possession of it in December, 1881, but that it had been put in evidence and was in possession of the magistrate, and was merely used by him on the examination then pending.

Witness continues:

Mr. Broadnax passed it to me, and that was the time I saw it.
Q. 141. Did Mr. Johnson have the drawing that you say he made at the shop in Hudson street where it could be seen by others?
A. He did. The drawing was made for the company and was in

their possession. It was kept in the office part of the time and part of the time on the bench; I mean Johnson's work-bench.

Q. 142. Was this in open sight of all coming into the shop?

A. It was.

Q. 143. Were Mr. Thomas G. Hall, Mr. James F. Oliver, Mr. Leopold, Mr. Harris in the habit of going into that office and to that bench when Johnson's drawing was so exposed?

A. Mr. Hall, Mr. James F. Oliver were in the habit of going to those places at that time. I cannot say as regards the others.

Q. 144. Do you know whether Mr. Hall or Mr. Oliver saw Johnson's drawing?

47 A. I do. Mr. Hall, Mr. Oliver, and myself talked about it in the office, which they could not do if they had not seen it.

Q. 145. Do you know where Mr. Johnson made that drawing?

A. At his boarding-house on Hudson street, out of the regular shop hours.

Q. 146. Did you see Mr. Johnson trying the mills made after Complainant's Exhibit C?

A. I did not, to the best of my recollection.

Q. 147. Do you know whether those mills were made or not after Johnson had completed Complainant's Exhibit C?

A. The mill was completed after the model C was completed.

Q. 148. Do not mills from use change their cut to some degree?

A. They do, or are apt to.

Direct examination closed.

Complainant's counsel offers in evidence certified copy of the Secretary of the Interior, decision on appeal in interference, as part of complainant's exhibit; interference recorded, and the same is marked Complainant's Exhibit Interference Record No. 2, J. E. B., Sp. Ex., 27 of June, 1884.

Examination adjourned until June 28th, 1884, at 11 a. m.

48 NEW YORK, 28 *June*, 1884—11 a. m.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Complainant's counsel offers in evidence a circular of the Interchangeable Tool Company, and the same is marked Complainant's Exhibit 6th, J. E. B., Sp. Ex'r, 26 June, 1884.

Complainant's counsel offers in evidence a letter written by A. Gustave to J. M. Adams, dated New York, April 5th, 1879, and the same is marked Complainant's Exhibit 8th, J. E. B., Sp. Ex'r, 28 June, 1884.

Complainant's counsel offers in evidence a letter written by J. F. Oliver to J. M. Adams, dated New York, March 5th, 1880, and the same is marked Complainant's Exhibit 7th, J. E. B., Sp. Ex'r, 28 June, 1884.

Defendants' counsel objects to the above exhibits on the ground that they are incompetent, irrelevant, and immaterial to any issue in this cause.

Direct examination of Mr. ADAMS continued:

Q. 149. Look at the letter now handed you and marked Complainant's Exhibit 8th, and state, if you know, by whom it was written and when you received it?

A. Written by A. Gustave, secretary of the Interchangeable Tool Company. I received it in Hartford, Connecticut, within two days of its date.

49 Q. 150. Did you accept the offer of employment contained in that letter?

A. I did, and went to New York the following Monday, which was April 14, 1879, and immediately entered the employment of that Company.

Q. 151. Look at letter now handed you, marked Complainant's Exhibit 7th, and state, if you know, who signed it and when and where you received it.

A. James F. Oliver, then secretary of the Interchangeable Tool Company, signed it. It was received at 380 Deane street, Brooklyn, New York, within two days of its date.

Q. 152. Did you leave the employment of the Interchangeable Tool Company in accordance with the tenor of Complainant's Exhibit 7th?

A. I did; but I wish to explain how. I left their employment when they removed to Milford, about the 20th of March, 1880.

Direct-examination closed.

Cross-examination by Mr. BROADNAX:

X Q. 153. What is your present occupation and where are you employed?

A. Tool-making. I am employed by the Elastic Sewing Machine Company of Brooklyn, No. 45 and 47 York street, Brooklyn, New York.

X Q. 154. How long have been employed there?

A. Several months.

X Q. 155. State definitely.

A. I commenced May 15th, 1884.

X Q. 156. Where were you previously employed?

Complainant's counsel objects to these questions for immateriality.

A. I was publishing the Courier de Worcester, in Worcester, Massachusetts.

X Q. 157. How long were you publishing that paper?

Same objection.

50 A. My personal connection with that paper was about two months.

X Q. 158. You say you went in the employ of the Interchangeable Tool Company on April 14, 1879. What is the first thing you did after entering the employ of that company?

Same objection.

A. My first work was to look the machinery over, and, finding it of an inferior quality, condemned it as unfit to use in the manufacture of nippers.

X Q. 159. What machinery did the company have in the shop?

Same objection.

A. Milling machines, polishing machines, drilling machines, forge-blower, and small bench tools.

X Q. 160. How many milling machines, polishing machines, and drilling machines did the company have?

Same objection.

A. Two or three milling machines; I think two drilling machines, and two polishing machines.

X Q. 161. What was done with these machines after you condemned them?

Same objection.

A. They were moved to one side of the room to give place for new machinery which we were going to purchase.

X Q. 162. Were they ultimately sold? How were they disposed of, if at all?

Same objection.

A. They were sold.

51 X Q. 163. Were any of these condemned machines used in the manufacture of nippers after you went in the employ of the company?

Same objection.

A. They were not.

X Q. 164. After you had condemned the machines and set them aside, what did you next do?

Same objection.

A. Went to Hartford and purchased machinery of Pratt & Whitney Company. At this time four milling machines, a drill press, one lathe, index milling machine, one shaper, one hand miller.

X Q. 165. Was that the first lot of machinery you purchased for the company?

Same objection.

A. It was.

X Q. 166. Give the date of the purchase.

Same objection.

A. About the 18th of April, 1879.

X Q. 167. When was the machinery delivered in the shop of the company?

Same objection.

A. Within a few days after its purchase. I cannot state more definitely.

X Q. 168. Was it a week at furthest?

Same objection.

A. I should say some of them arrived within a week.

52 X Q. 169. What, in the meantime, did you do towards improving the nipper, if anything?

A. Do not remember.

X Q. 170. When did you get the machinery in operation?

A. I don't remember.

X Q. 171. Before the 1st of May, 1879?

A. I don't remember.

X Q. 172. How long had you been in the employ of the company before you put the pin in the old nipper handles?

A. Several months.

X Q. 173. About how many months?

A. I cannot tell the precise number.

X Q. 174. State approximately.

A. Three or four months, to the best of my recollection.

X Q. 175. In how many old nipper handles did you put pins opposite the fulcra so as to form gearing between the handles?

A. Don't recollect.

X Q. 176. State approximately.

A. One pair, and perhaps several.

X Q. 177. How long had you been in the employ of the company before you put these pins in the first pair of handles to form gearing?

Objected to as repeating X Q. 171.

A. Three or four weeks, to the best of my recollection.

X Q. 178. Why did you put such pins in such handles?

A. To control the action of the jaws.

X Q. 179. By way of experiment, do you mean?

A. I do.

X Q. 180. Why did you put such pins in more than one pair of handles?

53 A. I had different size nippers.

X Q. 181. In how many different size nippers did you put the pins?

A. In No. 2 and No. 4.

X Q. 182. In which size nipper did you first put the pins?

A. In No. 2.

X Q. 183. After you put the pins in the No. 2 nipper how long was it before you put them in the No. 4 nipper?

A. Two or three months, to the best of my recollection.

X Q. 184. And you put the pins in the No. 2 nipper within three or four weeks, as I understand you, after you went in the employ of the company?

Objected to as repeating X Q. 177.

A. To the best of my recollection.

X Q. 185. That would make it about the middle of May that the first pin gearing was put in the first pair of handles, as I understand it?

Objected to as being testimony of and calculation of Mr. Broadnax.

A. Somewhere about the middle of May.

X Q. 186. And was that the first step you took towards joining the handles of the Hall nipper by a gear connection?

A. I think it was.

X Q. 187. And what was the next step?

A. Made a model with gearing, one of brass plate.

X Q. 188. Do you refer now to Complainant's Exhibit D?

A. I do.

X Q. 189. How long after you put the pin gearing between the first pair of handles before you made the model, Exhibit D?

54 A. Very soon; cannot tell now accurately.

X Q. 190. Was it within a week—two weeks? State as near as you can.

A. It was within two weeks, to the best of my recollection.

X Q. 191. Was it within one week?

A. Cannot state.

X Q. 192. What was the next step taken towards perfecting the gear connection between the handles?

A. The making of a model connecting the handles.

X Q. 193. Do you refer to the model, Complainant's Exhibit C?

A. I do.

X Q. 194. How long after model D was made before model C was made?

A. I should say model C was finished several weeks afterwards.

Adjourned until Monday, June 30, 1884, at 1 p. m.

NEW YORK, *June 30th*, 1884—1 p. m.

Parties met pursuant to adjournment.

Present: Same counsel, same witness.

Cross-examination of JAMES M. ADAMS continued:

X Q. 195. After Complainant's Exhibit Model C was made what was the next practical step taken towards the manufacture of the nipper?

A. To complete the mills after that model.

X Q. 196. Were the mills made before the templates?

A. They were not.

X Q. 197. Then the templates followed immediately after the making of the model C?

55 A. No, sir.

X Q. 198. Were not the templates made before the mills?

A. They were.

X Q. 199. What followed next after the making of model C?

A. The mills were completed after the model C—I mean after the form of the model C. There were some templates made before the model C was completed, and all, or nearly all, were laid aside and the model C used direct instead of the templates.

X Q. 200. Do you mean that the mills were made to conform to the model C, and not to the templates?

A. I do.

X Q. 201. Who made the templates?

A. Mr. E. A. Whittlesey—all or nearly all.

X Q. 202. I mean the templates of the inside and outside of the nipper jaw of the No. 2 nipper?

A. I don't know about the inside. I am quite positive Mr. Whittlesey made the outside template, which, I think, was never used in forming the mills.

X Q. 203. What model were these templates made to conform to?

A. To the Jencks model nipper.

X Q. 204. Were there no templates made to conform to the inside and outside edge of the jaws of model C?

A. I don't remember.

X Q. 205. When were the mills made?

A. I think in the months of May and June, 1879.

X Q. 206. What templates did you use to test the cut of the mills on the inside and outside of the nipper jaws?

A. I think there was none, though there might have been one for the inside; I do not recollect.

X Q. 207. After the mills were made what was the next step taken toward the manufacture of the No. 2 nipper?

56 A. We commenced milling the parts as soon as the jaws were completed and the forgings received.

X Q. 208. Before the forgings were received what was done towards making new dies in which to make the forgings?

A. We had a set of new dies made at Colt's Patent Fire Arms Manufacturing Company.

X Q. 209. Who made the dies at the Colt's Patent Fire Arms Manufacturing Co. Works?

Complainant's counsel objects to question as calling for hearsay.

A. Do not remember the name of workman.

X Q. 210. To what model were these dies made to conform?

A. To the new model, Exhibit C.

X Q. 211. Were the dies sunken by that model?

A. Don't recollect.

X Q. 212. Why were the new dies made?

A. So as to conform to the new model. The old model was too broad and the lack of stock in other parts.

X Q. 213. Where were the old forgings lacking in stock?

A. In the handles opposite the fulcra.

X Q. 214. Anywhere else?

A. In the jaws at the throat over the head of the spring.

X Q. 215. Anywhere else?

A. I think the old jaws were a little too thin to clean up nicely.

X Q. 216. Have you mentioned every particular wherein the old forgings were lacking in stock?

A. I think the cutting edge of the new forgings were made a little thicker; I don't remember further at present.

X Q. 217. Do you remember whether the shank of the jaw was not made longer?

57 A. I think it was.

X Q. 218. Do you recollect of Mr. Johnson's dovetailing a piece in the shank of the Jencks model so as to lengthen out the old forging?

A. There was a piece dovetailed in.

X Q. 219. Why was a piece dovetailed in?

A. I have no knowledge only from hearsay.

X Q. 220. What did you hear said and from whom did you hear it?

Objected to as calling for hearsay.

A. I heard that the old forging was too short at the shank, and that it was lengthened by dovetailing a piece in. I heard it from Mr. M. C. Johnson.

X Q. 221. Do you not know of your own knowledge that the old jaw forgings were too short?

A. I think they were.

X Q. 222. At the time you went in the employ of the Interchangeable Tool Company were there any of the old forgings there intended for the No. 2 nipper? And, if so, state what forgings there were.

Objected to as immaterial and irrelevant.

A. There were jaws, handles, and plates.

X Q. 223. What was done with them?

Same objection.

A. They were condemned and sold for scrap.

X Q. 224. Why were they condemned and sold for scrap?

A. Their size and shape were wrong, and most of the jaws were drilled in the rough state—and, perhaps, the handles.

X Q. 225. When were the new dies made?

A. Don't recollect.

X Q. 226. Have you no idea when they were made?

58 A. I think some of them were made the last of June, 1879; am not positive.

X Q. 227. Were all of the milling tools used by the company for the manufacture of the No. 2 nipper during the time that you were in its employ made to conform to Complainant's Exhibit Model C?

A. They were.

X Q. 228. Was that model used continually to test the shape of the mills by it during that time?

A. The model was followed whenever new mills were made; also used in adjusting the mills.

X Q. 229. How was the model used in adjusting the mills?

A. By putting the model in the fixture and lowering the mills down or passing the fixture under the mill with the model in it.

X Q. 230. How many sets of mills were made for the No. 2 nipper during the time you were in the employ of the company?

Objected to as immaterial.

A. Don't recollect.

X Q. 231. Was there more than one set?

Same objection.

A. Some were broken in hardening, and they were replaced by new ones.

X Q. 232. Who made the mills?

Objected to as repetition.

A. Most of them were made by E. A. Whittlesey.

X Q. 233. And did Mr. Whittlesey also use and adjust the mills?

A. The mills are used in the regular work by boys. He adjusted them in part.

59 X Q. 234. What do you mean by "adjusting them in part?"

A. I mean a part of the mills were adjusted by Mr. E. A. Whittlesey.

X Q. 235. What parts of the mills did Mr. E. A. Whittlesey adjust?

A. I do not recollect.

X Q. 236. How often are the mills adjusted?

A. After sharpening, when they have become dull in use.

X Q. 237. How often does that occur in practice?

Objected to as immaterial and irrelevant.

A. It might be on the first piece that was passed under the mill, if it was hard; they might last a week.

X Q. 238. In milling nipper jaws, how often would the mills have to be taken out, sharpened, and readjusted during a period of, say, one month?

A. I have no means of knowing.

X Q. 239. State approximately.

A. It is impossible.

X Q. 240. Who made the milling vise jaw first used by the company after your employ?

A. Made by myself and Mr. M. C. Johnson, and perhaps others.

X Q. 241. How long were the first set of vise jaws used?

A. I should say four or five months, more or less.

X Q. 242. Please look at the vise jaws now shown you, marked Defendants' Exhibit Milling Vise Jaws, and state if you recognize them as the vise jaws referred to by you in your last answer.

A. They look like them.

X Q. 243. Are they, in your opinion, the first milling vise jaws of the company?

Objected to as calling for an opinion.

60 A. I should say they were the first vise jaws used in milling the jaws.

X Q. 244. Both edges of the jaws?

A. I should say both edges.

X Q. 245. How many jaws were milled in these vise jaws at one time?

A. Two; the inside of one and the outside of the other, to the best of my recollection.

X Q. 246. When were the next set of milling vise jaws made for the No. 2 nipper?

A. I don't remember when they were completed; could not tell within a month.

X Q. 247. How nearly do the milling vise jaws conform in shape to that of the mills?

A. I never examined.

X Q. 248. What model was the second set of vise jaws made to conform to?

A. We used only one model while I was in their employ, and that was model C.

X Q. 249. And do you mean to swear that you had that model in continual use to form milling tools and fixtures by during the time that you were there?

A. I do not. After we had commenced milling the jaws after a model like C those jaws might have been used in making the new fixtures.

X Q. 250. Were they, in point of fact?

A. I do not recollect.

X Q. 251. Do you not know whether the milling vise jaws conform to the shape of the mills or not?

A. I never examined them.

X Q. 252. I place in your hands a drawing marked Defendants' Exhibit Drawing Kennedy Nipper. Please to examine it and state whether you ever saw it before; and, if so, when.

A. Not to my recollection.

X Q. 253. State whether you ever saw a drawing like that, or substantially like that, before; and, if so, when.

Objected to as immaterial and irrelevant.

61 A. Have no recollection of seeing this or any other drawing like it.

X Q. 254. Did you not at the time you went in the employment of the Interchangeable Tool Company, or within a short time after that and before you put the pins to form the gearing in the first pair of handles, see such a drawing at the works or office of the Interchangeable Tool Company?

A. I don't recollect that I did.

X Q. 155. Do you swear that you did not?

A. I have no recollection of it now.

X Q. 256. Do you swear positively that you did not get from Mr. Thomas G. Hall or from any of the officers of the Interchangeable Tool Company a drawing showing a gearing between the handles

of the nipper, with directions to go on and manufacture the nipper with a gear connection between the handles?

A. I swear positively that I did not.

X Q. 257. Do you mean to swear that you directed the alterations to be made in the nipper without instructions from any officer of the company?

Objected to, because it represents that the witness directed alterations to be made in the nipper, such not being shown in the record.

A. I did not give directions how to make model C in all its particulars. I had no instructions in regard to the nippers. I think Mr. Gustam proposed the cut (circular) at the top of each plate running down towards the handle on the outside of the plate.

X Q. 258. How many workmen were employed at the shop of the Interchangeable Tool Company when you went into its employ?

Objected to as immaterial and irrelevant.

A. Several; can't state exact number.

X Q. 259. Can you give their names?

62 Same objection.

A. Thomas Connors is the only one I recollect now.

X Q. 260. What were the men employed for?

Same objection.

A. I don't know.

X Q. 261. By what marks do you recognize Complainant's Exhibit C as the same model made by Johnson, about which you have testified?

A. I recognize this as the same model that was admitted at the interference case several years ago by the mark on the outside of one of the jaws—by the milling marks; also the mark "W," made with some sharp instrument on the side of the same jaw, and by a stamp on one of the handles, which was made from a brass plate of an alarm register which I furnished to Mr. Johnson.

X Q. 262. And by the same marks do you recognize this model as the same model made by Moses C. Johnson in May, or thereabouts, 1879, as you have testified?

A. By these marks and the general appearance, I should say it was the same model.

X Q. 263. Who, if any one, assisted Mr. Johnson in making that model?

A. Mr. Whittlesey, if any one.

X Q. 264. State whether you have been examined as a witness on behalf of Moses C. Johnson in a certain interference then pending in the Patent Office between Moses C. Johnson and Thomas G. Hall about the invention making the subject-matter of the patent in suit?

A. I have.

X Q. 265. Please to look at Complainant's Exhibit Interference

Record and state between and upon what pages your testimony is found in that record.

A. On pages 143 to 189.

X Q. 266. Are the statements contained in that deposition signed and sworn to by you true?

63 A. To the best of my knowledge, they are.

Complainant's counsel calls the attention of the court to the fact that since twenty minutes past three, it now being eleven minutes to four, defendants' counsel has asked questions 264, 265, and 266, and declines to conclude his cross-examination of the witness.

To which defendants' counsel responds that he has diligently pursued his cross-examination until ten minutes to four p. m.; that he has been diligently examining the papers and record with a view to properly conducting his cross-examination; that he cannot finish his cross-examination to-day, and needs further time to examine the record, papers, and case before proceeding with the cross-examination; that he will make such examination and be ready to proceed at the next meeting.

To which complainant's counsel replies that said defendants' counsel is fully familiar with the whole case, having been counsel for Thomas G. Hall in the interference case; that he has caused delays now extending over many months, and that in the meantime defendants are continuing to manufacture nippers including the improvements secured to plaintiff by letters patent; that by defendants' own testimony they are shown to be impecunious; and complainant's counsel again calls on defendants' counsel to conclude his cross-examination of witness, James M. Adams, formerly cross-examined by defendants' counsel in the interference above mentioned.

64 Defendants' counsel states that he has worked until four o'clock, the usual hour of adjournment, and doesn't mean to work any longer to-day.

Adjourned until July 10, 1884, at 11 a. m., same place.

NEW YORK, 10 *July*, 1884—11 a. m.

Parties met pursuant to adjournment.

Present: Same counsel, same witness.

Cross-examination of Mr. ADAMS continued:

X Q. 267. Referring now to the model made by M. C. Johnson, while in the employ of J. H. Jencks & Co., for the Interchangeable Tool Co., what use did the company make of that model?

A. I think we copied the form of the outside of the jaw, and after we had commenced turning out nippers with our new tools Mr. Whittlesey frequently used the jaws and one plate for testing the new handles.

X Q. 268. How long had you been in the employ of the company before you proposed to Mr. Gustam and Mr. Hall to throw out all the inside work of the nipper, excepting the spring?

A. I did not propose to Mr. Hall at all. I proposed to Mr. Gustam the first afternoon I was in their employ.

X Q. 269. What did he say in response to your proposition?

Objected to as improper, irrelevant, and immaterial.

A. Don't recollect at this time.

65 X Q. 270. Question 17 of your examination-in-chief is as follows:

Q. "Did you make any suggestions as to any improvements, and to whom did you make them, if any?"

A. "I did; to Mr. Gustam and Mr. Hall. I proposed to throw out all the inside work, excepting the spring."

Why do you swear now that you did not make any proposition to Mr. Hall?

Question objected —, as it does not connect fairly with cross-question 268, and direct question 17 does not refer to any special time.

A. I made the proposition to Mr. Gustam before Mr. Hall came into the office of the Tool Company. Mr. Gustam told Mr. Hall of my proposition in my presence, after which we three had a conversation of an hour or two. In the meantime I might have made some proposition which I do not now recollect.

X Q. 271. What was said by you and Mr. Gustam and Mr. Hall, in the conversation of an hour or two referred to in your last answer, about improving the nipper?

Objected to as immaterial and irrelevant.

A. The principal point in my mind at present is that Mr. Hall said he did not think it could be accomplished; that we must have the spring block.

X Q. 272. Had not the spring block been abandoned in the Jencks nipper?

A. Do not know.

X Q. 273. Is that all that was said in this conversation that you can recollect?

66 A. We talked about some experiments that had been tried just previously by myself.

X Q. 274. How did you propose to hold the spring in its place at that conversation?

Same objection; immaterial.

A. I think I proposed no definite plan.

X Q. 275. What experiments did you discuss as having been previously made by yourself?

A. An experiment by which the upper ends of the spring were bent outward and inserted into a recess in the jaw above the fulcra.

X Q. 276. When did you make that experiment?

Same objection.

A. In the afternoon referred to, before Mr. Hall came into the office.

X Q. 277. On one of the old nippers?

Same objection.

A. It was.

X Q. 278. What did Mr. Hall say to that experiment?

Same objection.

A. Said he had tried something similar and found that it wouldn't work.

X Q. 279. What do you mean when you say, in answer to question 22 of your examination-in-chief, that each man was making a nipper at his vise about as he was a mind to, at the time you went in the employ of the company?

Objected to as an unfair quotation from an answer which explains itself, and as immaterial.

67 Counsel adds to his question "and the parts would not interchange."

Counsel for complainant calls for the reading of question 22 and answer.

Question read by magistrate.

A. I mean that the company had no model, no gauges, no milling tools, but filed and filled the different parts that composed the nipper, and those parts would not interchange.

X Q. 280. The company was not making any nippers at all when you entered its employ, was it?

A. I don't remember on that day about the workmen.

X Q. 281. Well, did the company manufacture any nippers at all after you went in its employ, excepting upon the interchangeable plan?

Objected to as irrelevant and immaterial.

A. Did not.

X Q. 282. How long before you went in the employ of the company had the company ceased to manufacture the nipper upon the old plan?

Objected to as calling for hearsay.

A. I do not know.

X Q. 283. Why, then, do you say that at the time you went in the employ of the company each man was making a nipper at the vise about as he was a mind to?

Objected to as immaterial and irrelevant.

A. I mean previous—a few days, or a week, or ten days before.

X Q. 284. Do you mean, by your answer, that before you
68 went in the employ of the company, and at the time the company was manufacturing its nippers upon the old plan, each man was making a nipper pretty much as he was a mind to, and that the parts would not interchange?

Same objection and as repetition.

A. I think my previous answer covers the whole ground.

X Q. 285. Question repeated.

Same objection.

A. They fitted the forgings together the best they could to complete a nipper without tools, previously mentioned.

X Q. 286. In answer to question 22, you say at the time you went — the employ of the company each man was making a nipper at the vise about as he was a mind to. Now, do you mean by that that at the time you went in the employ of the company it was actually manufacturing nippers in that way?

Same objection and repetition and already answered.

A. I mean previous to my going in their employ.

X Q. 287. At the time you went in the employ of the company did you receive no instruction as to how the nipper was to be made from any of its officers?

A. I did not.

X Q. 288. Was it not understood by you, immediately upon your going in the employment of the company, that the construction of the nipper was to be altered?

Objected to as improper and irrelevant.

A. It was, and according to my judgment.

69 X Q. 289. Did you cause the new dies to be made without instructions from the company?

Objected to as improper.

A. Don't remember any instruction.

X Q. 290. Mr. Thomas G. Hall was president of the company, inventor and patentee of the nipper. Did he have nothing to do or say about the alterations made in its construction?

Objected to as improper and immaterial.

A. He had no authority at the shop in the change or manufacture of the nipper, and such were my instructions on my entering the employment of the Tool Company.

X Q. 291. From whom did you receive such instructions?

A. From Mr. A. Gustam, then secretary and business manager for the company.

X Q. 292. Are you certain that the old jaw forgings, out of which you say Johnson made his model, Complainant's Exhibit C, were reforged?

Objected to, because witness has not said they were reforged.

A. Don't recollect that they were or were not reforged.

X Q. 293. You say you made model, Complainant's Exhibit D, before Johnson made the model, Complainant's Exhibit C. Now, why do you say that model C is the first model you ever saw with the handles interlocked, with a projection in one handle working into a depression on the other, and that it is Johnson's invention?

Objected to, because witness has not stated that model D was made before model C.

70 A. It was not my answer.

X Q. 294. Question repeated.

A. I said I made model D before Johnson completed model C. Model C was the first complete model with a notch and prong connection between the handles, model D being connected with gearing, and not with a notch and prong, as in model C.

X Q. 295. Do you swear now that you did not make model D before Johnson made model C?

A. I swear that I completed model D before Johnson completed model C. The making of model C occupied several weeks, whereas model D was made in a few hours.

X Q. 296. Did you not swear, upon your examination in the Interference case, that you made model D first and gave it to Johnson and told him how you wanted him to make model C?

Objected to, because this mode of cross-examination is improper for this purpose, the record being the best evidence as to what the witness swore.

A. Don't recollect at this time.

X Q. 297. Could not mills be made to cut two teeth or projections on one handle of the nipper and two corresponding depressions in the other in a single operation, if it were necessary to have more than one projection and one depression to form the gearing?

Objected to as immaterial and irrelevant.

A. I don't know; never tried the experiment.

X Q. 298. Does not the gearing between the handles in Johnson's patent for the nipper in question consist substantially of one cog tooth on one handle working between two cog teeth on the other?

Objected to, as the patent speaks for itself.

71 A. I don't know.

X Q. 299. Do you consider yourself an expert tool-maker?

A. I consider myself an average workman, but not an expert in gearing.

X Q. 300. With whom was Mr. Whittlesey talking when he gave the credit of this invention to Mr. Johnson, and what did he say in such talk?

A. Don't recollect who besides myself at that time; he has always given Johnson credit.

X Q. 301. What time do you refer to, and what did he say at such talk?

A. Any time that he might have spoken of it in my presence. I cannot give the words and cannot give the dates.

X Q. 302. Which of the men employed at the shop of the Interchangeable Tool Company, in Hudson street, saw Johnson's model, Exhibit C?

A. I don't know.

X Q. 303. Which of the men used it for setting the mills?

A. Don't recollect; I think both Johnson and Whittlesey.

X Q. 304. Please state exactly how they used the model to set the mills by.

A. I don't know.

X Q. 305. Are you certain that this model, Complainant's Exhibit C, is the identical model you say you saw frequently in the hands of Thomas G. Hall, James F. Oliver, and David L. Harris in the company's shop, in Hudson street?

A. It is. I am.

X Q. 306. When did either of these gentlemen first see this model, Complainant's Exhibit C, in that shop?

A. Don't know.

X Q. 307. What talk did you have with Hall, Oliver, and Harris, or either of them, at that time they saw this model in the shop in Hudson street?

72 A. Don't recollect, but whenever the question was raised as to who invented model C it has always been given to M. C. Johnson.

X Q. 308. Did you not claim to Mr. Whittlesey that you were the inventor of the gearing between the handles of the Hall nipper and the projections over the head of the spring?

Objected to as immaterial.

A. I claimed to Mr. Whittlesey and all others that I made the gear connection between the handles, as shown in Complainant's Exhibit Model D, and never claimed the lips over the head of the spring.

X Q. 309. Did you ever present a claim to the company or its assignee, Mr. Henry L. Rogers, or did any one present a claim on your behalf for compensation for these improvements?

Same objection.

A. Not to my knowledge.

X Q. 310. Do you swear positively that there was no gearing made between the handles of the Jencks model nipper after you went in the employ of the Interchangeable Tool Company?

Same objection.

A. I do not; there might have been new handles made.

X Q. 311. Do you swear that pieces of metal were not dovetailed or braised in the handles of the Jencks model nipper, after you went in the employ of the company, by Moses C. Johnson, for the purpose of forming a gear connection between the handles and before the making of Exhibit C?

Objected to as immaterial.

73 A. I do.

X Q. 312. In answer to Q. 98 you say that Mr. Whittlesey made templates after the jaws of Johnson's model, Complainant's

Exhibit C. What were those templates used for and what was done with them?

Objected to as immaterial.

A. Don't recollect.

X Q. 313. In answer to Q. 103 you say you filed the notches in Defendant's Exhibit No. 4, nipper jaws, and put the spring in as an experiment to test the nipper with the pin connection. Who, if any one, told you to file the notches in these jaws for the purpose of holding the spring?

Objected to as an unfair statement of witness' answer after counsel's attention has been called thereto.

A. No one.

X Q. 314. Did it of your own accord?

A. Yes; I did.

X Q. 315. And from that time forward was the nippers made with a notch or projection over the upper end of the spring?

Objected to as not showing what time question relates to, and uncertainty.

A. We manufactured no No. 4 nippers during my employment.

X Q. 316. When was this experiment made?

A. cannot give the date, but some time in the latter part of summer of 1879, I should say.

X Q. 317. Why did you make that experiment in the latter part of the summer of 1879 to try how the pin gearing would work after you had perfected and was manufacturing the No. 2 nipper?

74 Objected to because the date is not shown.

A. I presume it was not tried for the sake of testing or seeing how the pin gearing would work. We used the small spring, such as I used in No. 2 nipper, and it was, probably, to test the spring that it was made.

X Q. 318. Referring now to Defendant's Exhibit No. 1, Johnson's drawing, did you not direct Johnson to make that drawing, and did not the company through you pay him an extra compensation for making it?

Objected to because of want of date; this is immaterial.

A. I gave no directions about this drawing, and the company did not pay him through me for making it.

X Q. 319. Did you pay Mr. Johnson an extra compensation for making that drawing?

Objected to as immaterial.

A. I did not.

X Q. 320. Did you pay him an extra compensation for making any drawing; and, if so, what drawing?

Same objection.

A. He received an extra compensation from the company for making a drawing of No. 4 or seven-inch nipper, which was made at his home, outside of the regular hours of labor.

X Q. 321. When was this drawing—Defendant's Exhibit No. 1, Johnson's drawing—made?

A. Don't recollect the date, but some time last of summer or early in fall of 1879.

X Q. 322. Were all the improvements in this nipper about
75 which you have testified made in the company's shop, with the company's materials and tools, in the company's time, and in the company's pay?

Objected to as uncertain and deceptive as to "company's pay."

A. To the best of my knowledge, were made in the company's shop, the material belonging in part to the company and part personal property of mine; with the company's tools and time, to the best of my recollection; don't know about company's pay.

X Q. 23. You have mentioned the marks of the milling tools on the edges of one of the jaws of Johnson's model, Complainant's Exhibit C. How were those milling marks made on that model?

A. I don't know.

X Q. 324. Referring now to Johnson's model, Complainant's Exhibit C, and to your testimony in the interference case, I read to you questions and answers 22 to 26, inclusive, from your deposition in that case, as follows:

"Q. 22. State, if you know, what the jaws were made of.

"A. They were made from a pair of old jaws—I should have said, made from a pair of old jaw forgings.

"Q. 23. By what means, if you know, were those forgings given their present shape and dimensions?

"A. A part of the cutting end was removed and reforged to the dimensions required. I think the irpresent shape was made with our tools, in the shop.

"Q. 24. What tools were used to give the original forgings their present finished shape?

"A. The milling machine was the principal one; by that I mean the mills in connection with the machine.

"Q. 25. From what model or pattern were the mills made
76 which you say you think gave the finished shape to these pins?

"A. I think we had a few templates.

"Q. 26. What were these templates of—what parts of the jaws?

"A. I do not recollect.

Are the answers to those questions true?

A. To the best of my knowledge and belief, they are.

X Q. 325. I read to you, from the same deposition, questions and answers 27 to 30, inclusive:

"Q. 27. Was or was not this model, Exhibit C, the first you ever saw which was provided with the two lips coming nearly or quite together in front of or above the end of the spring?

"A. It is the first and only one I ever saw.

"Q. 28. State, if you know, whose invention the placing of these lips upon a pair of nippers was.

"A. Moses C. Johnson's.

"Q. 29. Will you please further examine model, Exhibit C, and state whether or not this is the first model or nipper you ever saw to which the handles were interlocked by means of a stud or projection in one handle working into a socket or depression in the other.

"A. It is.

"Q. 30. State, if you know, whose invention that construction is and what led to it.

"A. Moses Johnson's invention. I told Mr. Johnson to take the model, Exhibit D, and so construct the interlocking arrangement as to make it with one cut. This model, Exhibit C, was the result."

Are the answers to those questions true?

A. They are, to the best of my recollection.

X. Q. 326. I read to you questions and answers 42 and 43 from the same deposition:

77 "Q. 42. State whether or not you ever had any conversation with Thomas G. Hall with regard to the proposed improvements in the nipper manufactured by the company.

"A. I have.

"Q. 43. Did you in those conversations explain to him what the proposed improvements were? And, if you did, state, as far as you recollect, what you showed him and what conversation you had upon that subject.

"A. I did. I proposed on the first day of my engagement with the Tool Company to throw out all that internal or inside arrangement, leaving only the spring. I proposed to throw out the brass block, the screw which holds the block, and save the drilling of the two holes in the plates and tapping one hole. Mr. Hall's reply to me was that it could not be done, as he had been over the whole ground himself."

Are the answers to those questions true?

A. They are, to the best of my recollection.

X Q. 327. At the time you proposed, in this conversation with Mr. Hall, to throw out the brass block that held the spring, what plan did you propose to him for holding the spring?

A. Did not propose the change to Mr. Hall, but he came into the office where Mr. Gustam and I were and joined in the conversation, and Mr. Gustam told Mr. Hall my proposition.

X Q. 328. Did you have no plan for holding the spring without the brass block?

A. Don't think I did.

X Q. 329. I read to you, from the same deposition, cross-questions and answers 98 to 103, inclusive, as follows:

"Q. 98. Did you ever claim to be the inventor of this nipper?

78 "A. I did not.

"Q. 99. Nor any part of it?

"A. I claimed to have made some improvement.

"Q. 100. What improvements did you claim to have made?

"A. The interlocking of the handles with a section of gear, 'as shown in Johnson's Exhibit D,' also placing the adjustable stop screw in the handle instead of a pin through the two plates of the nipper, as shown in Hall's Exhibit 10, and the throwing out of the brass spring block.

"Q. 101. Do you claim to be the inventor of the gear connection between the two handles, as shown by Johnson's Exhibit D?

"A. I do not.

"Q. 102. What do you mean by saying that you claim to have made the improvements of the interlocking gear between the two handles, in answer to question 100?

"A. I claimed to have improved the nipper by applying gearing to it, but do not claim to be the inventor of the connection of two handles by gearing.

"Q. 103. I did not ask you whether you claimed to be inventor of a gear cannection between two handles, but I did ask you, and I now repeat the question, whether you claimed to be the inventor of the improvement upon the Hall nipper, which improvement consists of the section of cog gearing between the two handles, as shown by your Exhibit D?

"A. The idea of a gear connection between the two handles of the Hall nipper was original with me, as far as I know."

Are the answers to those questions true?

A. They are, to the best of my recollection.

79 X Q. 330. I read to you, from the same deposition, cross-questions and answers 108 to 110, inclusive, as follows:

"X Q. 108. Do you recollect whether you told Mr. Thompson that you were the inventor of any part of this nipper?

"A. I have always said that I was the author of improvements in the old nipper, never claiming the gearing of two handles as my invention, only as applied to the Hall nipper.

"X Q. 109. That does not answer my question.

"A. In the sense that I use the word improvement.

"X Q. 110. Did you explain to Mr. Thompson that you claimed any of the improvements upon the Hall nipper; and, if so, what improvements did you tell him you claimed?

"A. I did. I had thrown out the spring block which was in the old Hall nipper; also applied sections of gear to interlock the handles."

Are the answers to those questions true?

A. They are, to the best of my recollection.

X Q. 331. I read from the same deposition, same question and answer 133, as follows:

"X Q. 133. When you told Mr. Thompson that you were the inventor of the improvements that you have mentioned as yours upon

this nipper what was the substance of his reply? State as near as you can recollect.

"A. He asked me if the elongation of the lip on each jaw to prevent the chips or cuttings from falling in into the inside was my invention. I replied I had no claim upon it. I thought it belonged to Mr. M. C. Johnson."

Is the answer to that question true?

80 Objected to unless the date of witness' conversation with Thompson is shown.

A. It is, to the best of my recollection.

X Q. 332. I read to you cross-questions and answers 112 to 114, inclusive, as follows:

"X Q. 112. When did you tell Mr. Thompson that you claimed the improvements you have mentioned?

"A. I do not recollect the date.

"X Q. 113. State as near as you can recollect.

"A. A year ago last summer.

"X Q. 114. Can you state what time it was a year ago last summer?

"A. I think it was either June, July, or August."

Are the answers to those questions true?

A. 633. To the best of my recollection, at that time. I have no means of getting a date.

Counsel agree that the date referred to by witness was June, July, or August, 1879.

X Q. 333. At the time you told Mr. Thompson that you thought that the invention of the elongation of these lips in each nipper jaw to prevent the chips or cuttings from falling in belonged to Mr. M. C. Johnson did you understand that Mr. Johnson's invention consisted of that feature in the nipper in combination with the other parts of the nipper?

Objected to as immaterial.

A. Don't recollect.

X Q. 334. What do you understand Mr. Johnson's invention to be as applied to this nipper?

A. The elongation of the lips over the end of the spring, in combination with the two jaws, two plates, two handles, and spring,
81 four screws holding the plates together; also a stop-screw in one of the handles. I will add the handles being connected by prong and notch.

X Q. 335. Do you mean one prong and notch in contradistinction to two or more prongs and notches?

A. I mean one prong and notch, as shown in Complainant's Exhibit Johnson's Model C.

X Q. 336. In contradistinction to a gearing substantially like that in your model, Complainant's Exhibit D?

Objected to, as witness is not an expert nor offered as such.

Defendants' counsel says he is not cross-examining the witness as an expert.

A. Yes.

Q. 337. I read to you, from the same deposition, cross-questions and answers 268 to 273, inclusive, as follows:

"X Q. 268. Now, it appears by your testimony, which I have read to you, that you told Johnson to take the model, Exhibit D, and so construct the interlocking arrangement as to make it with one cut, and that Mr. Johnson did so. Now, whose invention was that—your's or Mr. Johnson's?

"A. The demanding of one cut was mine, but the shape of the tooth and notch and general construction was Mr. Johnson's.

"X Q. 269. Please point out what invention there is in the shape of the tooth and the notch beyond what you suggested to Mr. Johnson when you told him to make it with one cut. Would not any one who had sense enough to put two and two together make it as Mr. Johnson did after what you told him?

"A. I consider the design and form of any kind of a machine an invention. To the second part of the question I say, 'I think not.'

82 "X Q. 270. Now, Mr. Adams, please to state whether, in point of fact, the cog connection in model C is made in making the nipper practically by one cut of the milling tool.

"A. One cut upon each handle.

"X Q. 271. Do you recollect whether or not you had a spring in your model, Exhibit D?

"A. I do not, though there might have been.

"X Q. 272. If you did not have a spring in the model, why could you have made the notches in the inside of the jaws for, just above their fulcra?

"A. The notch was made to represent the place to insert a spring.

"X Q. 273. You observe that the notches are there?

"A. Yes, sir."

Are the answers to those questions true?

Questions quoted objected to as calling for opinions and as examining witness in chief as an expert.

A. To the best of my recollection, they are.

Adjourned until July 11, 1884, at 11 a. m.

NEW YORK, 11*th July*, 1884—11 a. m.

Parties meet pursuant to adjournment.

Present: Same counsel.

" Same witness.

Cross-examination of Mr. ADAMS continued:

X Q. 338. Why did you take the model, Complainant's Exhibit D, away from the shop of the Interchangeable Tool Company?

83 Objected to as irrelevant and immaterial.

A. There was no use for it, and I had no especial reason for taking it; only, perhaps, as a matter of keepsake.

X Q. 339. I read to you, from your deposition in the interference case, cross-questions and answers 274 to 287, inclusive, as follows (on page 172 of Record):

"X Q. 274. Has the model, Exhibit D, been in your possession ever since it was made?

"A. It has not.

"X Q. 275. In whose possession has it been?

"A. In the shop of the Interchangeable Tool Company.

"X Q. 276. Was it made in the shop of that company?

"A. It was.

"X Q. 277. And in the time and pay of that company?

"A. It was.

"X Q. 278. Who took it away from the shop of that company?

"A. I did.

"X Q. 279. Did you take it with the knowledge and consent of the Tool Company?

"A. I asked the consent of no one. I do not know whether they knew it or not.

"X Q. 280. How did you come to carry off the property of the company without its knowledge or consent?

"A. Most of the property belonged to me.

"X Q. 281. What part of the property in the model belonged to you?

"A. The stock of which the jaws and handles were made.

"X Q. 282. So you think that authorized you to carry off the whole of it?

84 "A. The plate and screws had been condemned as worthless. My authority in their employ I considered sufficient to take it to my home.

"X Q. 283. When did you take it away from the shop of the company?

"A. I do not remember.

"X Q. 284. Has it been in your possession ever since you took it away from the company?

"A. Up to the present time it has.

"X Q. 285. Did you not consider the cog connection between the handles of the nipper a valuable improvement upon the Hall nipper?

"A. I did.

"X Q. 286. Did you apply for a patent for it?

"A. I did not.

"X Q. 287. Did you express an intention of applying for a patent for it?

"A. I did not, to the best of my recollection."

Are the answers to those questions true?

Objected to on the ground that this is not a police court; that

down to cross-question 285 the preceding citations are irrelevant, immaterial, and scandalous; that the succeeding ones have been repeatedly asked before in substance, and that all are irrelevant and immaterial.

A. They were then, to the best of my recollection. I wish to state the fact that the day on which the gear connection was made the shop was closed for business. (There was no business done.)

X Q. 340. Referring to the Jencks model, I read from the same deposition *on* cross-questions and answers 293 to 295, inclusive:

"X Q. 293. Do you recollect of Mr. Johnson's dovetailing a piece on the long end of the jaw lever to obtain the necessary length?

85 "A. I do.

"X Q. 294. Now, after Mr. Johnson went to work for the Interchangeable Tool Company, do you recollect of his brazing pieces of metal on the inside of the handles of the Jencks model nipper, about opposite their fulcra?

"A. I can't state positively.

"X Q. 295. Have you an indistinct recollection that he did?

"A. He reported to me that the piece dovetailed in the jaw lever was loose. I told him it must be fastened, but do not remember whether this repairing was on the handles or the jaw, or both."

Are the answers to those questions true?

A. To the best of my recollection, at that time, they were true, but I wish to add that I now distinctly remember he referred to the dovetailed piece on the long end of the jaw. This piece was dovetailed at the shop of J. H. Jencks & Co.

X Q. 341. Is your recollection about this matter better now than it was when you gave your testimony in the interference case?

A. It is, upon the point in question.

X Q. 342. I read to you cross-questions and answers 297 and 298, of the same deposition, as follows:

"X Q. 297. Do you recollect that pieces were brazed on the inside of the handles of the Jencks model nipper, and that cog gearing was cut in the pieces so brazed on the handles, so as to make a cog connection on the two handles?

"A. I do not.

"X Q. 298. Do you swear that this was not done in the shop of the Interchangeable Tool Co.?

"A. I will not swear either way; I am not positive."

Are the answers to those questions true?

86 A. They were, to the best of my recollection.

X Q. 343. I read to you, from the same deposition, cross-questions and answers 342 to 346, inclusive:

"X Q. 342. Please to look at this drawing, marked Hall's Exhibit No. 1, and state, if you know, who made it and when it was made.

"A. I think, by examining that drawing, I have seen it before, but

it had entirely passed away from my memory, and that it was made by Mr. Johnson in the shop of the Interchangeable Tool Co.

"X Q. 343. State, as near as you can recollect, when it was made.

"A. I should say somewhere in the month of May, 1879.

"X Q. 344. How do you identify the drawing as having been made by Mr. Johnson at the time and place you have mentioned?

"A. From a conversation Mr. Johnson and I had about the shape of the lower end of the jaw lever.

"X Q. 345. Please state what conversation you had with Mr. Johnson about the shape of the lower end of the jaw lever.

"A. It was in regard to having the jaws straight from a point opposite to the fulcrum to the lower end, instead of a circular, cut as in the old jaw, as it would make the jaw stronger and easier in making the tool.

"X Q. 346. By the old jaws do you mean the jaws of the nipper No. 2 or of the old nipper, as it was when you went in the employ of the Interchangeable Tool Co.?

"A. As it was in the old nipper."

Are the answers to those questions true?

A. They were at that time, to the best of my recollection;
87 and I wish now to add that I made a correction of my answer in that investigation afterward, I should say; and I wish to add, further, that after careful study I now swear that there was but one complete drawing made of a nipper while in their employ, and that was of a No. 4 (or seven-inch) nipper.

X Q. 344. The drawing referred to in the last questions and answers I have read to you is a drawing of the No. 1 nipper, is it not?

A. It is.

X Q. 345. Now, are you sure that this drawing that you say Johnson made in May, 1879, was not a drawing of the No. 2 nipper?

Objected to, because the witness has not said positively that Johnson made that drawing in May, 1870.

Counsel for defendants notes upon the record that the objection is manifestly made to prompt the witness.

Counsel for complainant notes that, on the contrary, it is done to check the tricky and unfair method of counsel for defendants in putting words in the mouth of the witness not uttered by him.

A. I don't know.

X Q. 346. Was this drawing made before or after Complainant's Exhibit C was made?

A. Don't know when it was made; never saw it while I was in the company's employ, to the best of my recollection. I refer to Defendants Exhibit No. 1, Johnson's drawing.

X Q. 347. Do you know whether any drawing was made of either size of the Hall nipper by Mr. Johnson in May, 1879?

88 Objected to as immaterial.

A. I do not.

X Q. 348. I read to you cross-questions and answers from your

deposition in the interference case 347, on pages 178 to 250, on page 179, inclusive, as follows:

"X Q. 347. Returning now again to Jencks model nipper, did Mr. Johnson make a new model nipper of the No. 2 size, after which all the company's nippers of that size were made, in addition to the Jencks model nipper and in addition to and after the skeleton model, Exhibit C, it was made?

"A. I do not remember whether he made a new model complete or used part of the Jencks model. He must have made new model handles, as they were entirely different in shape.

X Q. 348. Don't you recollect that the jaws of the old dies were considerable broader than the jaws of the new die, and don't you recollect that there was more stock in the new jaw under the throat to get the lips over the top of the spring in the new jaw than in the old?

"A. I distinctly recollect the reduction in the width of the jaw of the new forgings and increase of stock at the throat.

"X Q. 249. Would not such change necessitate the making of a new model nipper or the changing of the Jencks model nipper in the particulars referred to in your last answer to make the new dies by?

"A. It would.

"X Q. 250. Now, do you recollect whether the Jencks model nipper was altered or whether a new model nipper was made to make the new dies by?

"A. I do not."

89 Are the answers to those questions true?

A. They were, to the best of my recollection.

X Q. 349. Was it part of your duty, as foreman of the Interchangeable Tool Company's shop, to take charge of the models, templates, and gauges used by the company in the manufacture of its nipper, and did you, as a matter of fact, have charge of them?

A. Don't know that it was my especial duty to take charge of them. As a matter of fact, I did not take charge of them.

X Q. 350. Who did have charge of them?

A. They were generally in Mr. Johnson's care, and I think he made a practice of putting the model into the safe at night.

X Q. 351. What model did he put in the safe at night?

A. Don't recollect.

X Q. 352. Was the model, Complainant's Exhibit C, in the company's shop at the time you left the company?

A. Don't know.

X Q. 353. Referring again to the model, Complainant's Exhibit C, I read to you from your deposition in the interference case, cross-question and answer 265, page 180, as follows:

X Q. 265. "And did you make the die, templates, and gauges and milling tools after that model?"

A. "We made the templates, milling tools, and, I think, the gauges."

Is the answer to that question true?

A. It is, to the best of my recollection.

X Q. 354. Referring again to the same model, I read to you cross-questions and answers 273 to 278, inclusive (pp. 181 and 182):

90 X Q. 273. "Can you state certainly that the jaws now making part of model, Exhibit C, are the the same jaws that first made a part of that model?"

A. "To the best of my recollection, they are."

X Q. 274. "Have they any peculiarity or mark upon them by which you can identify them as the same jaws?"

A. "There is the mark M, which we had on our original jaws, meaning 'model' or standing for 'model.' Their general appearance gives me the impression that they are the same."

X Q. 275. "Please point out the letter 'M,' as being on the model."

A. ("Witness points out the letter scratched in the right-hand jaw, when the model is turned with the jaws uppermost.) I mean the jaw with the milling marks on the inside and outside edges."

X Q. 276. "Was that letter put on the model at the time it was made to identify it as the model nipper?"

A. "It was put on to indicate the model jaw."

X Q. 277. "Well, when?"

A. "I do not recollect."

X Q. 278. "Well, do you recollect seeing it when the model was in the works of the Interchangeable Tool Co.?"

A. "I have that impression, but am not positive."

Are the answers to those questions true?

A. They were, to the best of my recollection.

X Q. 355. Why did you resign from the services of the Interchangeable Tool Co.?

Objected to as immaterial and irrelevant.

A. The principal reason was that Mr. Hall told me that he had no business, and he thought he ought to have a position in the
91 shop, and proposed that when we went to Milford that he should be known to the public as superintendent and I be known in the shop as the real superintendent. I said if he was willing to step into my place after I had brought the nipper to perfection he was welcome to it, and that I should immediately tender my resignation.

X Q. 356. Did not the company pay you one month's salary after your resignation for any and all claims you might have against it?

Objected to as immaterial and irrelevant.

A. It did not.

X Q. 357. Did it not pay you one month's salary after you left the employ of the company?

A. It did not.

Cross-examination closed.

Redirect by Mr. BARNARD:

R. D. Q. 358. I place in your hands Complainant's Exhibit C, Johnson's model. Please examine it and state whether you have any doubt of its being the same model which you have testified was made by Moses C. Johnson in or about May, 1879, and which was seen and handled in the shop in Hudson street by Thomas G. Hall and others.

Objected to as mere repetition, and on further ground that the witness has already testified fully about it.

A. I have not the least doubt of its being the same model.

R. D. Q. 359. I place in your hands Complainant's Exhibit D. Please examine it and state whether there ever was a spring in that exhibit.

92 Question objected to on the ground that the witness has already testified that he didn't recollect whether there was or not.

A. Not to my recollection.

R. D. Q. 360. Which of these two, Complainant's Exhibit C and Complainant's Exhibit D, was begun first, if you know?

A. Complainant's Exhibit C, Johnson's model.

R. D. Q. 361. Did any one ever suggest or speak to you of the possibility of holding the spring in its place in the nipper and back from jaws by projections from or cuts in the inner side of the jaws before either Complainant's Exhibits C or D were made; and, if so, who so suggested, and how?

Objected to as immaterial.

A. Mr. Moses C. Johnson suggested to me, and before either model C or D were made.

R. D. Q. 362. I call your attention to cuts in the brass jaws of Exhibit D. When were they made and by whom?

A. I don't know.

R. D. Q. 363. Did you make them?

A. Not to my recollection.

R. D. Q. 364. Have you stated all that you recollect of the history of the making of Complainant's Exhibit C by Moses C. Johnson? If you have not, please state fully anything omitted by you.

A. While he was making the model, Exhibit C, he came into the office with jaw in hand and said, Adams, I think it would be a good idea to leave the stock on over the ends of the spring to prevent the chips from falling into the spring and prevent its operating. I replied, That's a good idea, Johnson; go ahead.

93 When that model was completed it had the lips over the head of the spring, as now shown in Complainant's Exhibit Johnson's Model C.

R. D. Q. 365. When you entered the employ of the Interchangeable Tool Company did you see there any nipper or model that did not have the spring fastened by brass block or pin in the plate?

A. I did not.

R. D. Q. 366. How many men were at work in their shop in Hudson street when you entered their employ, and what were they doing. State as near as you can.

A. Don't know; should say several; did not see them at work the day I commenced.

R. D. Q. 367. I don't mean the first twenty-four hours.

A. After I entered their employment there were two tool-makers (Mr. M. C. Johnson, Mr. E. A. Whittlesy) and a common workman (Mr. Conners) and a clerk (Leon Gustam).

R. D. Q. 368. Others?

Counsel objects to question as being examination-in-chief.

A. That's all.

Redirect closed.

JAMES M. ADAMS.

Subscribed and sworn to before me—

J. EDGAR BALL,
Notary Public and Special Examiner.

Adjourned until 11 o'clock a. m., July 12, 1884.

94 Further adjourned by consent until 11 o'clock a. m., July 15, 1884.

N. Y., 15 *July*, 1884.

Parties meet pursuant to adjournment.
Present: Same counsel.
Examination adjourned until 11 a. m., July 16, 1884.

N. Y., 16 *July*, 1884.

Parties meet pursuant to adjournment.
Present: Same counsel.
Examination adjourned until 11 a. m., July 21, 1884.

N. Y., 21 *July*, 1884.

Parties meet pursuant to adjournment.
Present: Same counsel.

ELBERT A. WHITTELSEY, a witness produced on behalf of complainant, being duly sworn, and interrogated by Mr. BARNARD, testifies as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Elbert A. Whittelsey; my age, 44 years; my residence is No. 88 South 10th street, Brooklyn, E. D.; my occupation is machinist and tool-maker; am at present in the employ of the Mount Vernon Manufacturing Company.

95 Q. 2. How long have you been a machinist and tool-maker, and where have you been employed as such?

A. I began my trade as machinist in 1856 and started at tool-making in 1861. I was first employed by the Bay City Machine Works, at Sandusky, Ohio, as an apprentice, in 1856, for about a

year; next for Woolfe and Wellhelem, in Findlay, Ohio, and also in the same town for Sheffield; next at Holly Springs, Mississippi. In 1861 I went to Hartford, Connecticut, in the Sharpe Rifle Factory for about three years; next I worked for Amos West, in Philadelphia, on the Sharpe piston, about a year. Next, Cooper Fire Arms Company, in same city; next, the Frankfort Arsenal, in Philadelphia, for about six months; next, Cooper Fire Arms Company again; next, to Hartford, Connecticut, with the National Screw Company about a year; next, to James L. Howard & Company and took charge of his tool-making about two years; next, to Keystone Sewing Machine Company of Philadelphia for about two years; next, to Bethlehem, Pennsylvania, for about six months; next, to New York to work for Woodbury Brothers; I was with them five or six years; next for the New York Needle Company, in Jersey City, until about the middle of April, 1879. Next I went to work for the Interchangeable Tool Company on April 23, 1879, and left their employ January 3rd or 4th, 1880.

Q. 3. What was the nature of your employ in that last-named company?

A. Employed as tool-maker, more especially to work on the mills, and to attend to the machinery of the nipper.

Q. 4. By whom were you hired when you went into the employ of this company?

A. Mr. James M. Adams. The shop of the company was in the American Express building, on Hudson street, New York
96 city, on the third floor, in the front part of the building and south end, and consisted of two rooms. In one of the rooms was a partition extending half way up, which cut off a part for an office.

Q. 5. Are you acquainted—and, if yea, how long acquainted—with Moses C. Johnson?

A. Have been acquainted with him twenty years and over.

Q. 6. What has been the occupation of Moses C. Johnson during that time?

A. Machinist and tool-maker.

Q. 7. Has Moses C. Johnson been employed in any shops as such with you, and what shops?

A. He has; employed as machinist in Cooper Fire Arms Company, at Philadelphia, and the Interchangeable Tool Company's shop, in New York.

Q. 8. State, if you know, what reputation Moses C. Johnson had as a machinist and tool-maker?

A. He was an extra good machinist and tool-maker.

Q. 9. Did you work with M. C. Johnson in the same room in the Interchangeable Tool Company's shop, and how near did you work to him?

A. I worked in the same room with him, and at the vise next to him, about six or eight feet away.

Q. 10. Who was the superintendent of the shop of the Interchangeable Tool Company during the time you were employed there?

A. James M. Adams.

Q. 11. Did any one else besides Mr. Adams have any supervision of the mechanical work in the shop during that time?

A. He was the recognized superintendent during that time. I don't recollect any one else having anything to say. We obeyed his orders.

Q. 12. Did or did not Mr. Thomas G. Hall have any control of the mechanical department in the shop of the company during your employment?

A. He never gave me any orders that I remember of.

97 Q. 13. Do you know of his giving anybody else?

A. I don't know.

Q. 14. Do you know of his giving Moses C. Johnson any orders?

A. I do not.

Q. 15. Did you know upon what kind of work Moses C. Johnson was employed in that shop?

A. I did know most of the time.

Q. 16. Please state what you know.

A. When I first went there there had been but very little accomplished. Two or three vises were put up. I can't think what he was first working at. Might be able to, if I had time.

Q. 17. Will you please examine the model I now show you, being Complainant's Exhibit C, and state when you first saw it, as near as you can recollect?

A. I first saw it in the Interchangeable Tool Co.'s shop, probably two or three weeks after we had started.

Q. 18. Please state what it is and by whom it was made.

A. It is the template made by M. C. Johnson to illustrate the action of the nipper.

Q. 19. Please explain what you mean by the "action of the nipper" and state what nipper you refer to.

A. I refer to the Hall patent nipper, and this illustrates the action of the tooth and spur.

Q. 20. What nipper do you mean by "Hall's patent nipper"—the nipper as patented by Hall before this model, Complainant's Exhibit C, was made, or the nipper after this model was made by Johnson?

Objected to as leading and as indicating the answer counsel wants.

A. This template was made to illustrate improvements in Hall's original nipper, or the one we had in the shop when we started.

98 Q. 21. I show you Complainant's Exhibit 6th and ask you whether you recognize the drawing shown thereon as being that of the nipper you describe as Hall's patent nipper, and which was the one you had in the shop when you commenced your employment there.

A. I think that is the circular. Am positive it is the circular issued by the Interchangeable Tool Company. The drawing represents the nipper they were making or about to make when I went there. They had the parts; I don't know whether they had put any of them together.

Q. 22. State, as nearly as you can, at what time this model, Complainant's Exhibit C, was completed.

A. I should think about the middle of May; some time in May, 1879.

Q. 23. Are you familiar with the nipper and models of nippers made by the Interchangeable Tool Company at the time you went in their employ and before Complainant's Exhibit C was made?

A. As I said before, I don't know of their ever completing any of the old nippers. I know of the model they had from which to make them. There were a few old nippers made. I don't know whether they were for sale or for samples.

Q. 24. Does or does not Complainant's Exhibit C, Johnson's model, contain any improvements over the nippers or models of nippers possessed by the company before Complainant's Exhibit C was made?

A. It does.

Q. 25. Please describe those improvements.

A. It consists of interlocking the handles and a different manner of inserting the spring.

Q. 26. Is that all?

A. Those are the only substantial improvements.

Q. 27. I call your attention to the lips projecting over the head of the spring and ask you if there was any such thing in any of the models used or possessed by the Interchangeable Tool Com-
99 pany before Johnson's model, Complainant's Exhibit C, was made?

A. I never had seen any.

Q. 28. Had you ever heard of any?

A. I never had.

Q. 29. What are the uses of those projecting lips?

A. They are made to keep the spring in its position, and are supposed to keep pieces from flying into the inside of the nipper after they are cut off.

Q. 30. State, if you know, who was the first inventor of these improvements—the interlocking of the handles, the holding of the spring, and the protection of the interior of the nipper by the lips in combination, as shown in Complainant's Exhibit 3d.

Objected to as incompetent, it being impossible for the witness to learn who was the first inventor of the combination described except from mere hearsay.

A. I suppose Mr. M. C. Johnson to be.

Q. 31. Had or have you ever seen or heard of any similar combination in a nipper before you saw that made by Mr. Johnson in May, 1879?

A. I never had or have.

Q. 32. Did you have any conversation with Moses C. Johnson about these improvements in May, 1879? Please state the substance, if yea.

A. I suppose we talked about it a good deal. I knew we talked

about them. We knew that the Jencks model nipper was imperfect and started to make the tools.

Defendants' counsel notes that complainant's counsel have put in the hands of the witness Complainant's Exhibit 6th, and asked him if that is Jencks' model nipper.

100 Complainant's counsel notes that this exhibit had been in the hands of the witness since the 21st question.

Q. 33. Does this circular represent the Jencks model, ~~Complainant's Exhibit 6?~~ Complainants exhibit 6*

A. It is substantially the same as the Jencks model nipper, to the best of my recollection.

Q. 34. Question 32 repeated.

Please finish your answer.

A. I can't remember the details of the conversation that occurred five years ago. I started to make the templates for the mills, and we (Adams, Johnson) had concluded not to continue until they made the changes suggested by this exhibit (Complainant's Exhibit C). We had several conversations in relation to the changing of the nipper from the Jencks model. We had started to make the tools from the Jencks model.

Q. 35. Were the improvements shown on Johnson's model, Complainant's Exhibit C, the subject of conversation in the shop at this time, that you say you concluded not to continue making the tools after or by Jencks' model?

A. They were.

Q. 36. Was anything said in the shop by others than Johnson, Adams, and yourself about the authorship of these improvements after Johnson's model, Exhibit C, was completed?

A. I don't remember any particular case.

Q. 37. You were examined in the interference case?

A. I was.

Q. 38. And in answer to Int. 25, "Do you know what was the general opinion in the shop as to who was the inventor of this improved nipper shown by model, Exhibit C," you said, "The credit was generally given to Mr. Johnson."

Please state how, when, and by whom such credit was given.

101 Objected to as leading.

A. I can only speak for myself. I always thought they were Johnson's improvement. Mr. Adams and Mr. Connors were there, and I never heard any doubt expressed of Mr. Johnson being the author of the combination.

I couldn't state anything further myself positively nor any particular conversation.

Q. 39. Without calling for any particular conversation, do you know whether or not the credit of making those improvements was given to Mr. Johnson in the shop?

Objected to as immaterial and because it is manifest that the witness can only give his impression.

A. It's my impression that they were.

Q. 40. From what do you derive that impression?

A. I don't know as I can answer that; I have no distinct recollection about it. It's my impression that the credit was generally given to Mr. Johnson in the shop.

Q. 41. Did not Johnson make and produce Complainant's Exhibit C in that shop?

A. He did.

Q. 42. Did any one else in that shop claim to be the author of the combination shown in that model?

Objected to as immaterial.

A. Not to my knowledge.

Q. 43. Would you have known it if any one had?

Objected to as incompetent.

A. I don't know whether I would or would not.

102 Q. 44. In the conversation referred to between Adams, Johnson, and yourself, did any one claim this combination besides Johnson?

A. Not at that time.

Q. 45. State, as nearly as you can recollect, the date upon which M. C. Johnson first communicated to you his ideas embraced in the construction of the model, Complainant's Exhibit C, or any part of it.

A. I think about the first of May, 1879; I think he spoke to me before he began on Exhibit C.

Q. 46. Were you intimately acquainted with Mr. M. C. Johnson about that time?

A. I was; we roomed together.

Q. 47. Did you talk with him about these improvements out of the shop?

A. Yes; we used to talk about it in our room.

Q. 48. Did you ever hear Mr. Thomas G. Hall give any instructions in regard to the construction of this model, Exhibit C?

Objected to as immaterial.

A. Never did.

Q. 49. Was Mr. Hall frequently in the shop when Complainant's Exhibit C, was being made by M. C. Johnson, and after it was finished?

A. Best of my recollection, Mr. Hall was there nearly every day, or some part of the day.

Q. 50. Do you know whether Mr. Hall knows of the adoption of Complainant's Exhibit C as the model for making the new nipper?

A. I don't know whether he knew it or not; I suppose he must.

Q. 51. Did not Mr. Hall see the new nipper with Johnson's improvements being made, and also when they were finished?

Objected to as leading and immaterial.

103 A. I can't swear as to what Mr. Hall saw; I suppose he saw them.

Q. 52. What did Mr. Hall do when, as you say, he came into the shop during your employ?

A. Most always went over and talked with Mr. Adams and walked around the shop.

Q. 53. Did you ever see him looking at any of the workmen working on the new nipper?

A. I know he looked at me.

Q. 54. Did you ever hear him say anything about these new nippers; please state fully, if yea.

A. I can't remember. I know he was in a terrible hurry for nippers.

Q. 55. Did you ever hear him make any claim to the authorship of these improvements while you were in the employ of the company?

A. Never did.

Q. 56. Did you or did you not ever hear Mr. J. M. Adams give any instruction to Mr. M. C. Johnson directing him how to make this model, Complainant's Exhibit C?

A. Not to my recollection.

Q. 57. Did you ever hear Mr. J. M. Adams claim to be the inventor of this combination of improvements shown in Exhibit C while you were in the employ of the company?

Objected to as immaterial.

A. No.

Q. 58. I place in your hands letters patent granted to Henry G. Thompson as assignee of Moses C. Johnson, dated October 5, 1880, No. 232,975, being Complainant's Exhibit 2d in this suit. Please read the specification and claim contained therein and state who, in your opinion, was the original and first inventor of the combination described and claimed therein.

104 Objected to as calling for mere opinion, witness having read the same answers.

A. M. C. Johnson.

Q. 59. In the light of all facts within your knowledge and observation, what is your belief and opinion as to the authorship of that combination?

Objected to as mere repetition.

A. I attribute it to Mr. Johnson.

Q. 60. Please examine the nipper handles now shown you, marked Defendants' Exhibit Nipper Handles, and say whether you have seen them before, where you first saw them, and what they are.

A. I have seen them before. I saw one of them in the shop in Hudson street about the time of the completion of Exhibit C; can't say whether just before or just after. They are a pair of handles, I think, of No. 4 nipper. I can't state when or where they were made.

Q. 61. Is there anything about those nipper handles which would indicate when you saw them first? Did you do anything with them?

A. The first I remember of these handles Mr. Adams brought me one of them and wanted me to insert a pin in it in the place of one that had been broken off. It was either the latter part of May or early June, 1879.

Q. 62. In which handle did you insert the pin? And state, if you know, how the broken pin was broken off.

A. It's my impression that it was in the handle with two teeth. I don't know how the broken pin was broken off.

Q. 63. At the time of your going into the employ of the Interchangeable Tool Company was that company making nippers for sale?

A. They had started, but whether they ever completed any for sale I don't know.

105 Q. 64. Were the nippers, as then made, successful?

A. I don't know.

Q. 65. What, if any, was the objection to the old Hall nipper, shown on the circular, Complainant's Exhibit 6th?

A. The objection to those was the jaws wouldn't work simultaneously.

Q. 66. What was the result of this defect?

A. The cutting edges would over and underlap each other and destroy the cutting edges by careless handling and break.

Q. 67. Would the old nipper, without the interlocking arrangement or connection of the handles, cut in the saw line with certainty in the hands of ordinary buyers?

Question objected to as immaterial.

A. They would cut, but I don't know about their certainty.

Q. 68. Would not the nipper, as now made with Johnson's improvements, cut with certainty in the hands of any buyer?

A. Any one possessing the necessary strength to operate them.

Q. 69. Did you make the mills and templates for use in manufacturing the improved nipper; and, if so, after what model, if any, did you make them?

A. I made all the first mills, commencing along about the first of May, 1879, and used both Jencks' model and Exhibit C.

Q. 70. How many and what of the Jencks model, and how many and what of Exhibit C?

A. I used both the Jencks model and Exhibit C in making mills for the jaws; I also used the plates on the Jencks model to make the two semicircular cuts at the small end of the plates — the side plates, I mean.

Q. 71. The side plates are in substance the same in both the old and improved nippers, are they not?

106 A. No; there is a slight difference in the side plates of the old and the new nipper. The top of the old plates was angular, the new ones curved with groove in them. The old ones had a

hole; I think Mr. Hall put a pin in there extending through one and fastened in the other to make the jaws come together even.

Q. Were the old plates cast aside by the company?

A. They were, after we began making the new nipper. In the new side plate the holes for the fulcra screws are located differently from those in the old nipper. The holes in the side plates of the new nipper corresponded with the plates in those of the Jencks model.

Q. 73. What mill did you make from Exhibit C?

A. The inside of the jaw, and for the spur and notch on the handles.

Q. 74. For what parts of the jaws did you use the Jencks model to make the mills by?

A. The cuts on the outside and the side cuts of the jaw.

Q. 75. The mills by which all the "improvements" were cut, I understand you to say, were made according to Johnson's model, Complainant's Exhibit C, were they or were they not?

A. That question is very ambiguous to me. I made the mills for the inside of the jaw from Exhibit C.

Q. 76. Why did you make the mills for the inside of the jaw from Exhibit C?

A. Because we changed it from the Jencks nipper so as to hold the spring and give the lips over the spring like in Exhibit C. Those lips were not on the Jencks model.

Q. 77. Why did you make the mills for the handles from Exhibit C?

A. Because that was the model which incorporated the spur and notch in the nipper.

107 Q. 78. Were those mills changed in form so as to make different cuts while you were in the employ of the company?

A. I think we varied them a little after we started.

Q. 79. How and when did you vary them?

A. Directly after we had the first gang of mills started. I varied them a little so as to give them more thickness to the cutting edge that clips the wire or metal to be cut.

Adjourned until July 22, 1884, at 11 a. m.

N. Y., 22 *July*, 1884—11 a. m.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Direct examination of Mr. WHITTELSEY continued:

Q. 80. At adjournment you had partially answered Q. 79.

(Question and answer read.)

Will you complete your answer as to time?

A. Immediately upon the completion of that gang of mills; before the mills had been started to run regularly to produce work—some time in June, 1879.

Q. 81. Were those mills used to cut the inside of the jaw so as to produce the lips over the head of the spring?

A. They were.

Q. 82. Were those mills changed, after they were used "to produce work regular," during the time you were in the employ of the company?

A. Don't think they were.

Q. 83. Do you know?

108 A. I know there was no material change in them. After we had them adjusted we tried to keep them just there.

Q. 84. I place in your hands the printed record of your testimony in the interference case? Look at the same and state on what pages you find it.

A. It begins at the 111th page and terminates on the 140th.

Q. 85. Would you now repeat those same answers to those same questions if the same were put to you by counsel on this examination?

A. The answers would be substantially the same; might not be the exact words.

It is stipulated between counsel that the testimony referred to may be read as evidence in this case from the Exhibit Interference Record without reprinting the same in this case.

Direct examination closed.

Cross-examination by Mr. BROADNAX:

X Q. 86. Referring to your testimony in the Interference Record, how recently have you read it?

A. I read it last night.

Complainant's counsel notes that said Exhibit Interference Record was placed in hands of witness to be read by him at the close of the last examination.

X Q. 87. Did you read the whole of it last night—both your examination-in-chief and cross-examination?

A. I read most of it, with the exception of the last page of cross-examination.

109 X Q. 88. And do you affirm that testimony, assuming the same questions to be propounded to you in this case?

A. Yes; I do.

X Q. 89. Referring now to Johnson's model, Exhibit C, did you assist to make it; and, if yea, what did you do towards the construction of the model?

A. I assisted. It consisted in filing off the cheek pieces of the two jaws.

X Q. 90. What were the jaws of that model made of?

A. Made from a couple of old forgings we had in the shop.

X Q. 91. Made in the dies before they were altered?

A. I suppose so. They were jaws for the nipper, forged before I came there.

X Q. 92. In making this model, were they reforged in any way before you filed off the cheek pieces?

A. I have no recollection of their having been.

X Q. 93. Having filed off the cheek pieces, would you not recollect whether these jaw forgings had been in the fire and reforged, so as to enlarge them?

A. I don't recollect of their having been. I don't think they ever were, in fact.

X Q. 94. When that model was originally made, to what side plates were the jaws originally fitted?

A. To the Jencks nipper model side plates.

X Q. 95. And did one of the side plates of the Jencks model nipper originally make a part of that model, Exhibit C?

A. It did.

X Q. 96. Does that same side plate make a part of that same model now?

A. No.

X Q. 97. Do you wish to be understood as saying that the handles and jaws of Johnson's model, Exhibit C, were originally fitted to one of the side plates of the Jencks model nipper, and that one of the side plates of the Jencks model nipper originally formed
110 a part of the model made by Johnson and known here as Exhibit C?

A. To the best of my knowledge and belief, it did.

X Q. 98. Did you make the templates of the new No. 2 nipper?

A. I did.

X Q. 99. Would you recognize them if you saw them?

A. I think I should.

X Q. 100. I hand you Defendants' Exhibit Templates. Please state if you recognize them as the templates you made for the No. 2 nipper.

A. I think they are the ones I made, and in the same condition as when I made them. I would not swear to the inside templates. It is very much like it, but after five years I will not swear to the identity of it. It looks like my work. The outside one I am positive is mine.

X Q. 101. Why do you think the inside one is not yours also? Have you tried it on any of the jaws of the No. 2 nipper that makes you think that it may not be the templates that you made?

A. That is the reason why I think it is not. I have tried it on a jaw that was milled with the first set of mills, when they were new. I should say that is what produced the doubt.

X Q. 102. Have you the jaws with you upon which you tried these templates; and, if yea, will you please produce them?

A. I have, and do produce them. I have two; one has the first two cuts, and the other one is completed.

Defendants' counsel offers the jaws in evidence and the same are marked Defendants' Exhibit Whittlesey's Jaws, J. E. B., Sp. Ex'r 4, 22 July, 1884.

Complainant's counsel notes that witness had kept these
111 jaws as samples of the work, and he will call for their production on trial.

X Q. 103. Please take these jaws and mark them for identification.

A. I have marked said jaws with the letters "E. A. W." for identification.

X Q. 104. Did the side plate of the Jencks model nipper make a part of Johnson's model, Complainant's Exhibit C, during the whole of the time you were in the employ of the Interchangeable Tool Company?

Objected to, because witness has not stated that it formed a part, but was fitted to that plate.

A. I think it made a part of the original model, like Exhibit C, that we worked from. I had no recollection of the jaws having been put in any other plate. I want to modify that; they both have been probably tried on other plates, or, for that matter, both the jaws and the handles. They were detached most of the time after the templates were completed.

X Q. 105. When was the jaws of Exhibit C fitted on to the side plate that now makes a part of that model?

A. I don't know.

X Q. 106. Did that side plate make a part of Exhibit C during the time that you were in the employ of the Interchangeable Tool Company?

A. I don't remember ever having seen it, the handles and jaws, assembled on that plate while in the employ of the company.

X Q. 107. When you made the templates of No. 2 nipper to what model did you make them conform?

A. I started and made a complete set for the Jencks nipper first, and we afterwards abandoned the inside of the Jencks nipper and made the template to conform to the inside of the jaw of Exhibit C.

This relates exclusively to the jaws.

112 X Q. 108. The template that you made to conform to the inside of the jaws of Exhibit C, did it fit the form of the jaw exactly when you made it?

A. It probably did. I would make a template as close as I could.

X Q. 109. And is the same true as to the templates you made to conform to the outside of the Jencks model nipper?

A. It is.

X Q. 110. Referring now to the jaws you have produced and which have been offered in evidence here this morning as Defendants' Exhibit Whittelsey's Jaws, were they both milled in the inside at the same time? State the facts as to the time and conditions under which these two jaws were milled.

A. The one having the two-edge cuts only (outside and inside) was cut previous to the mills being ground, as they were originally made. The other one was made after the mills had been ground, probably once or twice.

X Q. 111. Would the circumstances you have mentioned in your last answer make a difference in the form and proportion of the parts milled; and, if yea, what difference would it make?

Question as to "proportion" objected to as being misleading and ambiguous.

A. There were some essential points about the jaw that we were very particular about—that we tried to keep very exact. There were other points which were not so essential which we allowed a little variation on. The round cut below the lip was a very hard cut, and the mill used to wear away very rapidly there. Not being an essential point, we allowed the variation. If the mill had to be ground more the jaws would vary some in that particular point.

X Q. 112. Do you mean the cut between the cutting edge of the nipper and the lip?

113 A. That is the cut I refer to.

X Q. 113. Is it not true that the milling would vary as the form of the mills were changed, more or less, by grinding them?

A. I did all the grinding while I was there, and used a Vernier gauge and templates, and tried to keep them as near the original as possible. We tried not to let them vary except as to that cut in the throat.

X. Q. 114. Question repeated.

Objected to as immaterial and speculative and already answered, as far as it applies to the present case.

A. We have no receiving gauges. They probably would vary a trifle.

X Q. 115. If the form of the mills were changed by grinding, would there not be a corresponding change in the cut of the mills?

Same objection.

A. Certainly there would.

X Q. 116. When did you make the first set of templates to conform to the inside and outside edges of the Jencks model nipper?

Objected to as repetition and already answered.

A. Was the first job I did when I started to work for them.

X Q. 117. When did you get them completed?

A. Was probably a day or a day and half on them.

X Q. 118. What became of those templates?

Objected to as immaterial.

114 A. I think I have the outside one here; inside one, I don't know what became of it.

X Q. 119. When did you make the template to conform to the inside of Johnson's so-called model, Exhibit C—I mean, when did you get it completed?

A. Probably some time in the last half of May, 1879.

X Q. 120. Referring again to the jaws put in evidence this morning (Whittlesey's jaws), which does the templates fit nearest—I mean the inside of the jaw?

Objected to as immaterial and repetition.

A. The one that — only two cuts fits the template best.

(Witness tries the template on jaws before answering.)

X Q. 121. You have expressed some doubt as to whether the template for the inside of the jaw is the same template that you made. Can you swear that it is not the same template you made?

A. I cannot.

X Q. 122. If it is the same template that you made, and you fitted it to the inside of the jaws of the Johnson model it would fit that model exactly, would it not?

A. It would be a close fit.

X Q. 123. Please to try the templates (Defendants' Exhibit Templates) on the jaws of the Johnson model, Exhibit C, and state whether it fits it closely.

(Witness tries the said jaws on template.)

A. It fits pretty near, but it does not fit as close as I should fit a template.

X Q. 124. Upon your examination of these jaws, and upon trying the templates upon them, is it your opinion that either the
115 template is not the same template that you made or that the jaws are not the same jaws to which you fitted the template?

A. It is either a different jaw or this is not the template I made.

X Q. 125. Referring now to the Jencks model nipper, can you recollect whether or not the spring between the jaws was not put in in the same way that the spring is put in in Johnson's Exhibit C, differing from that only in that the lip over the head of the spring in model C is longer than the corresponding lip or projection in the Jencks model, and in that it was not quite so high up in the Jencks model?

Objected to because it nowhere appears on the record that there was any lip in the Jencks model, but the contrary.

A. I think there was no projection in the Jencks model whatever.

X Q. 126. Can you swear to that positively?

A. That is as I remember the Jencks model.

X Q. 127. How was the spring held in the Jencks model nipper, as you recollect?

A. I don't know that I could state how that was held exactly, but I think it was designed to be held the same as in the old nipper.

X Q. 128. Do you recollect of Moses C. Johnson fitting a pair of handles in the Jencks model nipper having a cog connection between the handles consisting of two or more cogs on each handle?

A. I think there was a pair fitted in that nipper, or some nipper; I don't know which.

X Q. 129. Was that done on or about the first of May, 1879, before model C was made?

A. I think it was.

X Q. 130. Do you recollect of seeing, about the time you went into the employ of the Interchangeable Tool Company, in its
116 shop, before model C was made, a drawing of a cut of what is known as the Kennedy nipper, showing a cog connection between the handles such as I now show you?

(Witness shown Defendant's Exhibit No. 2, drawing — Kennedy nipper.)

Objected to as immaterial.

A. I think there was a drawing of the Kennedy nipper in the shop. At any rate, there was a drawing of a nipper, showing the handles geared together. I think this is the one.

X Q. 131. Is it not true that the idea of gearing the handles of the Hall nipper was suggested by that drawing to your mind and to the minds of other workmen of the shop, and especially the minds of Mr. Adams and Mr. Johnson?

Objected to as clearly incompetent.

A. I think it was suggested by that drawing. We all looked at it, Johnson, I, and Adams. We saw the necessity of locking the handles together and that suggested the way.

X Q. 132. Now, where did that drawing come from? How did it get in the shop?

A. I think, to the best of my recollection, Mr. Judge brought it in. He was a lawyer and used to be in the shop very often.

X Q. 133. Do you recollect of Mr. Judge or Mr. Hall bringing in the shop a lead-pencil sketch of a nipper or nipper handles showing a pin gearing between the handles?

Objected to as immaterial.

117 A. I have an indistinct recollection of a drawing being brought in, but couldn't recollect by whom it was brought in or what it represented.

X Q. 134. What, if any, authority did Mr. Hall have as to the management and control of the manufacturing business of the company?

A. Mr. Gustam was manager; I don't know what authority Mr. Hall had; he was president of the company, however.

X Q. 135. Did not Mr. Hall have general control of all the work and business of the company through Mr. Adams and Mr. Gustam?

Objected to as immaterial and repetition.

A. I don't know what control he had; he used to talk a great deal to both of them.

Redirect examination by Mr. BARNARD:

R. D. Q. 136. Will you explain what Moses C. Johnson did in making the model, Complainant's Exhibit C, in relation to the side plate of the Jencks model, as hereinbefore referred to?

A. The first change that was started to make on this model, Exhibit C, was the brass handles. To illustrate the interlocking and get the shape of the handles, he fitted the handles in the Jencks side plate, using the Jencks jaws. He afterwards made these jaws or a pair of jaws similar to them (witness holding Exhibit C in his hand); then it was detached and we used the several parts to make our tools by.

R. D. Q. 137. Did you intend, in answer to cross-question 104, to convey the idea that the side plate of the Jencks model was assembled as a part of Complainant's Exhibit C, during the whole period of your employment by the company, so as to form a part of Johnson's model C?

118 Counsel reads X Q. 104 and answer.

A. It was very seldom that they were all assembled together after they were detached. I don't remember ever to have seen them assembled after model C was completed and we had taken it apart to work from while I was in the employ of the company.

R. D. Q. 138. The improvements made by Johnson were chiefly in the jaws and handles and not in the plate, were they not?

A. The plate of the new nipper was modified too, as well as the jaws and handles.

R. D. Q. 139. Then I understand you to state that the side plate of the Jencks model nipper was only used to hold the improved jaws and handles together temporarily?

A. It was to hold them together and get the correct fulcrum.

R. D. Q. 140. Did you not make new sides plates in which you omitted the holes drilled in the Jencks model for the purpose of holding the spring block for the use of the improved nipper?

Objected to as outrageously leading and as intended to intimate to the witness what kind of an answer is wanted.

A. Certainly we omitted the spring block in the new nipper.

R. D. Q. 141. I show you Complainant's Exhibit 3rd, a nipper made in 1880, and ask you when the side plate shown in that nipper was made.

A. I couldn't tell when that was made; might have been made last week.

R. D. Q. 142. I mean when side plates of that style were adopted and made by the company?

A. I think it was either June or July, 1879, that the tools were completed.

119 R. D. Q. 143. Please examine Exhibit 3rd, shown you, and state, if you can, the difference between that and Jencks' model.

A. This has the handles locked together, and the spring is inserted different from what it was in the Jencks nipper. The plates in the Jencks nipper were angular at the top, while this is circular. This also has a groove at the top of the plate, which the Jencks nipper has not; has also the lips over the top of the spring, which I don't think were in the Jencks nipper. That is all the material difference. I think there were two more holes in each plate of the Jencks nipper.

R. D. Q. 144. Did you ever see a nipper made in conformity to the Kennedy drawing?

A. I never did.

R. D. Q. 145. I place in your hands Complainant's Exhibit 5th.

Please examine and state what difference there is, if any, in the construction of this from Complainant's Exhibit 3rd.

A. There is a considerable difference in the thickness of the lip over the spring. The cutting edge is a little heavier on Exhibit 5th than on Exhibit 3rd. The lip holding the spring in Exhibit 5th doesn't project as high as it does in Exhibit 3rd.

R. D. Q. 146. Are those differences essential in the construction of the nipper?

A. I think one nipper would operate as well as the other.

R. D. Q. 147. Please compare the jaws of Exhibits 3d and 5th with Defendant's Exhibit Templates and state which fits the closest.

A. Exhibit 3d fits the closest.

R. D. Q. 148. To what degree?

A. Almost a perfect fit on Exhibit 3d. The other one seems to be considerably off away from the gauge.

R. D. Q. 149. How do they compare with Complainant's Exhibit C?

120 A. One of jaws on Exhibit C fits it very nearly; the other does not. Neither one of the jaws of Exhibit C fit the template as well as Exhibit 3d does.

R. D. Q. 150. Why do the jaws of Exhibit C differ? Can you tell?

A. I don't know the cause of their differing. One may have been filed more, or been machined, or something.

R. D. Q. 151. Was Exhibit C made by machinery or by hand?

A. Originally made by hand.

Recross-examination:

R. X Q. 152. By what means is the lower end of the side plate given its form in the manufacture of these nippers?

Objected to as immaterial and irrelevant.

A. They are milled and correct shape.

R. X Q. 153. Now, were not the company's mills for milling the lower end of the side plates made to conform to the lower end of the side plate of the Jencks model nipper?

A. They were.

R. X Q. 154. And were not the company's drilling gigs, by which the holes are bored in the side plates to receive the fulcrum screws, made to conform to the corresponding holes in the side plate of the Jencks model nipper?

Same objection.

A. They were.

R. X Q. 155. How often do the mills for milling the jaws have to be ground and reset?

Objected to as irrelevant and immaterial.

121 A. That depends a good deal on the metal. If they were annealed soft and were clean—that is, free from scales—the

mills used to run a week. In hard metal they would probably run two or three days.

R. X Q. 156. Is it not evident, upon an examination of the jaws of Exhibit C, that one of them has been through the mills of the company?

Objected to as incompetent and improper.

A. It is. One shows milling-tool marks.

R. X Q. 157. Upon trying the templates upon Complainant's Exhibit 3d, assuming that nipper to have been made by the Interchangeable Tool Company, is it not your opinion that the templates, Defendant's Exhibit Templates, are the templates by which the company's No. 2 nipper is made?

Objected to, because it has been shown on the record that Complainant's Exhibit 3d was made years ago.

A. They fit it very close; I should say the mills were made by that template for the jaws.

R. X Q. 158. Before Johnson made his template, of which model C seems to be a bogus copy or imitation, what, if any, suggestion did you or Mr. Adams make to him about putting in the spring, the cog connection between the handles?

Question objected to as manifestly improper in form, spirit, and stump-speech assertion.

A. I can't speak for Mr. Adams; I used to think, I always thought, that I suggested the putting in that spring with the lip.

R. X Q. 159. Do you mean by that that you were first to suggest the lip over the top of the spring?

122 A. That is what I mean.

R. X Q. 160. For what reason did Mr. Adams resign his position as foreman of the Interchangeable Tool Company's shop?

Objected to as irrelevant, immaterial, and incompetent.

A. I think he was requested to resign. Mr. Gustam told me he wasn't to be taken up to Milford with them before he had resigned.

Move to strike out hearsay.

R. X Q. 161. For what reason was Mr. Adams requested to resign? Give the best information you have in reply to my question.

Objected to for manifest incompetence.

A. It's my impression for incompetency.

R. X Q. 162. In your opinion, from what you knew of Mr. Adams and saw of him in the shop, was he not really incompetent to fill the position of foreman, and did not Mr. Hall stop the work at one time on account of the imperfect manner in which it was done or caused to be done by Mr. Adams?

Objected to as immaterial, irrelevant, and incompetent.

A. I think he was incompetent, and that there was quite a lot of work spoiled; I think it was plates did wrong.

Re-redirect:

R. R. D. Q. 163. From what you know of the two men,
123 Johnson and Adams, which of the two is the better mechanic?
A. Mr. Johnson is, by far.

ELBERT A. WHITTELSEY.

Sworn to and subscribed before me—

J. EDGAR BULL,
Notary Public and Special Examiner.

United States Circuit Court, Eastern District of New York. In Equity.

HENRY G. THOMPSON, Complainant,

vs.

THOMAS G. HALL, SAMUEL LEOPOLD, J. F. OLIVER, and DAVID L. HARRIS, Defendants.

It is hereby stipulated between the counsel for the respective parties hereto that the testimony of Moses C. Johnson, taken on behalf of said Johnson, in the interference between Thomas G. Hall and Moses C. Johnson, may be read by counsel at the hearing of this cause, and it is to be considered as part of complainant's
124 record herein the same as if the said Johnson was called and testified in this cause, the said testimony of said Johnson to be copied from the printed record of Johnson in the said interference, and to make part of the record herein.

New York, July 24th, 1884.

AMOS BROADNAX,
Defendants' Solicitor.
HORACE BARNARD,
Compl't's Solicitor.

Before the Commissioner of Patents, in the matter of the interference between the application of Thomas G. Hall for an improvement in cutting pliers, and the patent No. 232,975, granted October 5th, 1880, to Moses C. Johnson.

Depositions of witnesses examined on behalf of Moses C. Johnson, pursuant to the annexed notice, at the office of Henry E. Taintor, No. 333 Main street, in the city of Hartford, Connecticut, on Thursday, November 17th, 1881, at 10 o'clock in the forenoon.

Present: Amos Broadnax, Esq., on behalf of Thomas G. Hall, and Theodore G. Ellis, Esq., on behalf of Moses C. Johnson.

MOSES C. JOHNSON produced and duly sworn.

Int. 1. What is your name, age, residence, and occupation?

A. My name is Moses Carlyle Johnson; my age is 37 years; my residence is 53 Wadsworth street, Hartford, Connecticut, and my occupation is machinist.

Int. 2. State the circumstances of when and how you
125 first became acquainted with a company in New York called the Interchangeable Tool Company, with which Mr. Thomas G. Hall was connected.

A. I think it was in September—the latter part—1878, Mr. Mat. Diamond told me that he had received a letter from a party in New York, who asked him to recommend or obtain a man capable of taking charge of a shop where they were manufacturing cutting nippers. He at that time, at the Park Central Hotel, in Hartford, Conn., showed to me and read a letter from one of the company, and thought it would be advisable for me to go and look into the matter; that he thought that I would be a man that would suit them; and I should say, about October 1st or 2d, 1878, I called upon this company, at their office, 71 Broadway, New York, and there met a member of the company, a Mr. A. Gustam, and explained to him my errand there, telling him Mr. Mat. Diamond had thought it advisable for me to call upon them, as they wished a man to take charge of the manufacturing of a cutting nipper. He at that time showed me a nipper and told me that he had nothing to do with the mechanical department, and I would have to go to Harlem and see Mr. Thomas G. Hall. I at that time thought so little of the nipper and the manner it was constructed I did not think it worth while to go to Harlem.

Int. 3. When your attention was called by Mr. Gustam to the nipper referred to in your last answer what did you observe about it that induced you to form the opinion you have stated?

A. I noticed that the jaws had a tendency to make a shearing cut—that is, one overlap the other. I mean by that, which necessarily would create a pressure which would break one or the other jaw, whereas a nipper, to be correctly constructed, should at all times have one jaw in perfect line with the other.

Int. 4. State whether you were ever employed by J. H.
126 Jencks & Co.; and, if so, state when and for how long you were so employed, and also state where their place of business was.

A. I was. Immediately—that is, a day or two after my acquaintance with 71 Broadway, in 1878, about October 1st or 2d, somewhere about that time—I called on Mr. E. Bullard, at 14 Dey street, New York; told him my business in New York, and at this time told him that I would like to engage in business in the city of New York. He told me that I was just the man that he at that time wished to go to work at his shop, at the corner of Centre and Hester streets, as he saw the necessity of having some men in the shop who had been educated in the leading machine shops of Hartford or the Eastern States, as they had at that time a job which would either make them a great deal of money or they would lose a great deal of money. I would state that I went into the employ of J. H. Jencks & Co. in the early part of October, 1878, and continued with them until about the first of February, 1879, there or thereabouts. I could not say exactly the dates.

Int. 5. You have mentioned in your answer the name of Mr. E.

P. Bullard. What connection did he have with the firm of J. H. Jencks & Co.?

A. He told me he was a partner.

Int. 6. What was your principal occupation while you was with the firm of J. H. Jencks & Co.?

A. My principal occupation was building a printing press for Samuel Crump, of Mountclair, New Jersey, and after that building a model nipper for the Interchangeable Tool Company, under the directions of Mr. Thomas G. Hall, at that time president of the Interchangeable Tool Company.

Int. 7. Do you know where that model now is?

A. I do not.

Int. 8. Please describe it as near as you can.

A. I would state the model I made was an exact duplicate
127 of a cut on a circular, with exceptions that the long end of the jaw lever was more hooking. This is the circular that I refer to.

(Counsel for Johnson offers the circular produced by witness in evidence, and the same is marked Johnson's Exhibit A., H. E. T., N. P.)

Int. 9. State whether or not Mr. J. M. Adams was employed by J. H. Jencks & Co. at the same time as yourself.

A. He was.

Int. 10. State where you first became acquainted with Mr. Adams and how long you have known him.

A. In Hartford, Connecticut. I have known him for ten years at least; probably more.

Int. 11. Did you have any conversation with Mr. Adams about the nipper while you were with J. H. Jencks & Co.?

A. I did; several.

Int. 12. State generally what was the nature of those conversations.

(Question objected to as irrelevant, immaterial, and incompetent upon any issue in the controversy, and as not evidence upon any issue in question.)

A. I told Mr. Adams what brought me to New York from Hartford; told him of my conversation with Matthew Dimond and with Mr. A. Gustam at 71 Broadway. I had several conversations with him about the Hall nipper, and told him that I thought so little of the nipper, in the manner it was constructed, that I did not think it worth my while to go to Harlem to see Mr. Thomas G. Hall, who at that time, Mr. A. Gustam told me, had charge of the mechanical
department of the manufacture of the nipper. I at this
128 time explained to Mr. Adams the reason of my coming from Hartford to New York.

Int. 12. Where were you living at the time you worked for J. H. Jencks & Co.?

A. I roomed at the Revere House, corner of Houston and Broadway, New York, and took my meals at restaurant.

Int. 14. State whether or not your attention about this time was particularly called to the subject of cutting nippers and whether you made any attempts at its improvement.

A. I would state that it was. In fact, my attention was called to it from the time I left Hartford in 1878. I had several conversations while rooming at the Revere House with Mr. O. D. Woodbury, of 103 East Houston street.

Int. 15. State what conversations you had with Mr. O. D. Woodbury, if any of them related to improvements of yours upon the cutting nippers.

A. We had several conversations about the construction of the nipper, and he agreed with me that it was mechanically of bad construction and not — all practical. I at this time called his attention to the fact that the two jaws or cutting heads should move at a uniform speed one with the other, and at that time made a sketch of what I considered would be the proper way—at least one way—of accomplishing the purpose.

Int. 16. State if you have the sketch you refer to still in your possession and if you can produce it.

A. I can. I have it in my possession.

(Witness produces a sketch made upon one of the Revere House cards, which is offered in evidence by counsel for Johnson and marked Johnson's Exhibit B, H. E. T., N. P.)

129 Int. 17. State as near as you can the date at which you made this sketch.

A. I could not state the exact date. It was during the month of October, 1878.

Int. 18. Please look at the sketch and describe what points were intended to be illustrated by it.

(Objected to as incompetent; the sketch must speak for itself.)

A. That the movement of one handle would necessitate the movement of the other the same distance.

Int. 19. When did you first go to work for the Interchangeable Tool Company in New York?

A. About the twentieth of April, 1879.

Int. 20. How long were you employed by that company?

A. About one year; a little over, perhaps.

Int. 21. State what you were employed to do, when you commenced, and generally what was your occupation while employed by the company.

A. I was employed as a tool-maker, and was hired by Mr. Adams, who at that time (about April, 1879, this was) was superintendent of the shop—at least he told me he was; I don't know that he was. My general occupation was making tools and adjusting machines.

Int. 22. Were you or were you not at any time employed by said company to exercise your inventive genius in improving the cutting nippers they were manufacturing?

A. I was not employed to exercise my inventive genius.

Int. 23. While with the Interchangeable Tool Company did you

make any drawings for them? If so, state what drawings you made and the dates you made them, as near as you can recollect.

130 A. While in their employ I think I made drawings at five different times. The first two were for milling-machine fixtures; the next drawing was known as their seven-inch nipper, made in September, 1879; the drawings for the fixtures were probably made previous to this; the fourth drawing I made was what is known as the No. 1 nipper on their list. None, to my knowledge, has ever been made but the model. This drawing of the No. 1 nipper was made in April, 1880. The fifth drawing was of some screw-machine tools, and was made in April, 1880.

Int. 24. Please look at Hall's Exhibit No. 1 and say whether that is one of the drawings you refer to, and which one.

A. It is one that I refer to. My testimony would go to show that this was drawing No. 4, made at Milford, Connecticut, in April, 1880.

Int. 25. State, if you know, who wrote the initials "M. C. J." on this drawing.

A. I do; I saw him do it; Mr. Leon Gustam.

Int. 26. Were the drawings that you made of machine fixtures adapted to make nippers of the kind shown in the drawing, Exhibit 1?

A. They were for a larger size.

Int. 27. State whether or not you made any models for the Interchangeable Tool Company while you were employed by them; and, if so, how many.

A. I did; I made two; one of the seven-inch nipper, in the fall of 1879; also one of the No. 1 nipper, in the spring of 1880.

Int. 28. Describe these models as to their peculiarities, especially relating to the matter now in controversy.

A. I would say that this Exhibit No. 1 describes it.

Int. 29. Which model, the first or second, do you mean by "it?"

A. It describes them both—that is, the mechanical movement of both.

131 Int. 30. Do you know and are you familiar with the particular combination of parts in the cutting nippers that are the subject-matter of this interference?

A. I am.

Int. 31. State, as near as you can, when you first conceived the invention of the combination of parts stated in this interference by the Patent Office and contained in your patent granted October 5th, 1880.

A. Immediately after leaving their office, in October, 1878, I was satisfied that the handles or jaws should be geared or locked in such manner that the movement of one would necessitate the movement of the other the exact distance of the movement of the first lever, and in the winter of 1879, I discovered that the part or portion being cut from the end of a rod or wire would leave the jaws with such force as to enter the V-shaped spring and thereby preventing the working of said spring. To overcome this difficulty I saw the necessity of putting projections below the cutting edge and immediately above the jaw fulcrum which would always present a

smaller space than the diameter or dimensions of rod being cut. I also discovered that these projections would prevent the spring from working up (by "up" I mean towards the cutting edge), and thereby doing away with two pieces which they then had in their nipper, to wit, one piece a brass block, slotted, for the tang of the spring, the other piece was a screw.

Int. 32. State, then, the nearest you can recollect, the month and day when you first conceived the invention of the combination in question.

A. In the month of May, 1879, I made a working movement of my invention.

Int. 33. Describe the working movement you made in May, 1879, as near as you can, and where it was made.

A. I would state it was an exact duplicate of Exhibit No. 1, so far as the mechanical movement is concerned, including pro-
132 jections on jaws for preventing the entrance of matter not required inside of the nipper. It was made in the American Express building, corner of Jay and Hudson streets, New York.

Int. 34. Have you that movement still in your possession, and can you produce it?

A. I have. I do produce it.

(Same model offered in evidence by counsel for Johnson and marked Johnson's Exhibit C, H. E. T., N. P.)

Int. 35. In the construction of this model did you get any ideas from any one else or was it entirely of your own invention?

A. I did not get any ideas from any one else and it was my invention, so far as I know.

Int. 36. Where did you get the material for making the handles of this model nipper?

A. Mr. J. M. Adams gave me the material from his private tool-chest.

Int. 37. State, if you know, what the stamp was, part of which shows on one of the handles.

A. I do; it was the stamp of an Alarm Register Company. This register was for conductors' use.

Int. 38. Was it on the material before you made the handle?

A. It was.

Int. 39. Where did you get the material for the other parts of the nipper?

A. They were picked up out of the refuse matter or material belonging to the Interchangeable Tool Company.

Int. 10. Give, as near as you can, the exact dates on which this model was commenced and completed.

A. I should say it was commenced and completed between May 10th and May 20th, 1879; I could not state the exact dates.

133 Int. 41. How long after you made this model was it before you applied for a patent?

A. I should say it was about one year; perhaps a little over; it may be less.

Int. 42. At the time that you made this model had the Inter-

changeable Tool Company done anything in their shops towards making a nipper embodying the same improvements?

A. Not to my knowledge.

Int. 43. Would you have been likely to have known, from your position with the company, if anything had been done in making such a nipper?

A. I think I should.

Int. 44. What was the character of the nipper, as near as you can describe, that was made by the Interchangeable Tool Company when you were first employed by them?

A. Exhibit A is the best description I can give of it; that explains itself.

Int. 45. How long was it after you commenced work for the company before they introduced any or all of the improvements shown in the model, Exhibit C?

A. I think it was immediately after, or, in other words, as soon as they could make their tools and produce nippers for the market.

Int. 46. At whose suggestion were these improvements introduced in the shop of the Interchangeable Tool Company?

A. I should say that my model of the working movement led the members of the company to adopt it. Who or by whom I can't say.

Int. 47. Who had charge of the preparations in the way of making drawings and getting up the machinery for manufacturing the improved nipper?

A. Mr. J. M. Adams.

Int. 48. Do you know of any experiments made by Mr. Adams for the purpose of improving the nipper?

A. I do.

134 Int. 49. State what they were, as near as you can recollect.

A. He filed a series of teeth on each handle lever—three or more—and that is the only experiment I know of.

Int. 50. About what time was that?

A. This was in the fore part of May, 1879, or perhaps about the middle. I do not remember the exact dates so as to give them.

Int. 51. Was the experiment of Mr. Adams a success?

A. I do not remember ever seeing a working model of his experiment. It was never adopted by the company.

Int. 52. Did you ever see any other model or experimental nippers at the shop of the Interchangeable Tool Company embodying any of the principles shown in your patent of October 5th, 1880, which were got up by any other person than yourself and the experiment you name of Mr. Adams?

A. I never did, unless they might call a No. 4 or 7-inch nipper, which had two or more holes drilled in one handle and I should say three in the other, into which were inserted pieces of Stub's wire, said pieces of wire to act as gear teeth or cogs. Who drilled the holes or who put the teeth in I couldn't say positively. I know it was not Mr. Hall, for it was not done at his suggestion. When the nipper was placed together in working shape the wire teeth were so slender and the holes drilled so irregular that it created a pur-

chase on two or more teeth, which were broken by the first attempt to cut wire. That model has been put in as some exhibit. I do not remember the number. Mr. Hall says he had the teeth filed and caused two of them to be removed on one handle, and the exhibit itself will show whether they were filed or broken.

Int. 53. About what time, stating the date as near as you can, was this experiment made?

135 A. I should say it was about the first of June, 1879.

Int. 54. Do you know for what especial purpose these handles with gear teeth or cogs were made?

A. I know at the time they were talking of putting a sample nipper into the fair of the American Institute, at New York. They wished very much to get in a large-sized nipper. They were then preparing to make only one size, the No. 2.

Int. 55. When you commenced work for the Interchangeable Tool Company what model of nipper were they working from as a standard?

A. The one which was made at J. H. Jencks', No. 180 (I think it was) Center street.

Int. 56. About what machinery and stock did the Interchangeable Tool Company have at that time in their shop—I mean in April, 1879?

A. They had three or four second-hand milling machines, some polishing apparatus, perhaps a small bench drill press. They also had several hundred parts of the nipper corresponding to the parts shown in Hall's Exhibit No. 8.

Int. 57. Did they have any forgings?

A. They did.

Int. 58. State what they were and how many.

A. I could not state the exact number; there were several hundred; might be a thousand; they were intended for nippers like Exhibit No. 8—that is, so far as the handles and jaws are concerned.

Int. 59. Did the company about this time order new machinery?

A. They did.

Int. 60. State about what it was and what it was adapted to make.

A. Milling machines, lathes, drill presses, &c. Those tools are adapted to make anything.

Int. 61. Did you have any conversations with J. M. Adams and others about this time, in which you explained your improvements in the construction of the nippers?

136 (Question objected to on the ground that it has already been asked and answered.)

A. I did, shortly after this time. By "this time" I understand April, 1879.

Int. 62. State what those conversations were and when they occurred.

A. The conversations occurred at various times, in the shop and out of the shop, with my room-mate, E. A. Whittlesey, and also Mr.

Adams. They were in relation to the nipper as then being made and constructed.

Int. 63. Did you ever intend to give your invention to the Interchangeable Tool Company?

(Question objected to as not competent to prove what the witness intended to do.)

A. Not without value.

Int. 64. After you commenced to work with the Interchangeable Tool Company who was superintendent of the mechanical department of the work?

A. Mr. J. M. Adams.

Int. 65. What was the position of Mr. A. Gustam in April, 1879, and what office did he hold in the company?

A. I think he was secretary; in fact, he was considered by the men in the shop as a general manager.

Int. 66. At that time, April, May, and June, 1879, did Thomas G. Hall have anything to do with the mechanical part of the work at the shop?

A. Not to my knowledge.

Int. 67. State about how long, if you know, was it before you commenced with the Interchangeable Tool Company that Mr. Adams was employed in the shop?

A. I think he was hired about the 15th of April, 1879.

Int. 68. State, as near as you can recollect, when you saw
137 the first complete nipper made on the plan of the model, Exhibit C.

A. I think it was some time in July, 1879.

Int. 69. Who made it?

A. It was made by several different men. Different men did different operations on the machines.

Int. 70. Previous to the making of this complete nipper was there any working model made from which to construct the tools?

A. There was not a working model made. The tools were constructed by Exhibit C. That is the model the tools were made from.

Int. 71. While you were at work for the Interchangeable Tool Company were you or not ever paid for extra time or over time for work done for the company?

A. Mr. Adams gave me ten dollars at one time for making drawings for milling-machine fixtures. This is the only money I remember ever receiving for over work or over time.

Int. 72. Are you acquainted with the state of the art, so far as regards cutting nippers, for, say, five or ten years back—I mean generally as to their construction.

A. I am. I have seen drawings or cuts of several cutting nippers made by different parties.

Int. 73. Are you or not knowing to the fact that such tools were made with gear teeth between the two handles for the purpose of guiding their movements prior to 1877?

A. I think the Patent Office records would show that. I have seen them.

(Direct examination closed.)

Cross-examination by AMOS BROADNAX, Esq.:

X Int. 74. Where are you employed as a machinist now, if anywhere?

A. I am now superintendent of the Hartford Duplicate Machine Tool Company, No. 262 Main street, Hartford, Conn.

138 X Int. 75. How long have you been employed there as such superintendent?

A. I was made superintendent on the forming of the company, and have been employed at No. 262 Main street since the 1st of September, 1881.

X Int. 76. Is that company a corporation?

A. It is.

X Int. 77. Who are its managers—I mean its trustees?

A. Mr. A. D. Brower, of Hackensack, New Jersey, and Mr. M. C. Johnson, of Hartford, Conn.

X Int. 78. Who are the directors?

A. Mr. A. D. Brower, Mr. M. C. Johnson (that is myself), and Mr. A. D. Bower's son, whose first name I have forgotten.

X Int. 79. Is that a corporation organized under the laws of Connecticut?

A. It is not.

X Int. 80. Under the laws of what State is it organized?

A. New Jersey.

X Int. 81. Previous to your going into the employ of that corporation in whose employ was you?

A. Mr. Dwight Slate.

X Int. 82. Where?

A. Hartford, Conn.

X Int. 83. When did you go into his employ?

A. The fore part of March, 1881.

X Int. 84. When did you leave his employ?

A. In August, 1881.

X Int. 85. What time in August?

A. I don't know the exact time; his books will tell that. It was the latter part of August.

X Int. 86. Previous to your going into the employ of Mr. Slate in whose employ was you?

A. J. B. Secor, Bridgeport, Conn.

X Int. 87. When did you go in his employ and when did you leave it?

A. I went into his employ about August, 1880, and left it about the last of January, 1881.

139 X Int. 88. Previous to your going into the employ of Mr. Secor in whose employ was you?

A. The Frary Cutlery Company, at Bridgeport, Connecticut.

X Int. 89. When did you go into the employ of that company and when did you leave it?

A. I think it was some time in May—perhaps the latter part of May—1880, that I went into their employ, and I left about the first of August, 1880.

X Int. 90. Previous to your going into the employ of the Frary Cutlery Co. in whose employ was you?

A. The Interchangeable Tool Company.

X Int. 91. You are the Moses C. Johnson, as I understand it, that is one of the parties to this interference?

A. I am.

X Int. 92. Do you own the patent involved in this interference?

A. I do not.

X Int. 93. Who does own it?

A. Mr. Henry G. Thompson, I suppose; he did.

X Int. 94. Did you assign it to him?

A. I did.

X Int. 95. Before or after the patent was issued?

A. I think it was before.

X Int. 96. How long before?

A. I don't remember.

X Int. 97. Do you remember when the assignment was made?

A. I do not remember the date.

X Int. 98. State as near as you can.

A. Say about June, 1880.

X Int. 99. How did you come to assign the patent to Mr. Henry G. Thompson?

A. He bought it of me.

X Int. 100. What did he give you for it?

A. Stocks.

X Int. 101. What kind of stocks?

A. Interchangeable Tool Company's stock.

X Int. 102. Did he give you anything else?

140 A. He has.

X Int. 103. What else has he given you?

A. Money.

X Int. 104. How much?

A. I cannot tell now how much.

X Int. 105. When did he make his last payment?

A. I could not give you the date of that.

X Int. 106. When did he make the first payment?

A. He made the first payment when I assigned or immediately after.

X Int. 107. How much did he pay you the first payment in money?

A. The first payment was fifty dollars.

X Int. 108. What was the amount of his last payment?

A. I think it was one hundred dollars.

X Int. 109. About when was that made?

A. I could not give the date; I have no record of it.

X Int. 110. State as near as you can recollect.

A. Some time within the past month.

X Int. 111. How many shares of the Interchangeable Tool Company's stock did he give you?

A. Twenty.

X Int. 112. Has it been transferred to you on the books of the company?

A. I do not think it has.

X Int. 113. What is its par value.

A. One thousand dollars.

X Int. 114. In selling this patent to Mr. Thompson did you seek him or did he seek you?

A. I don't know that he ever sought me, and I don't know that I ever sought him.

X Int. 115. How did you get together to make the sale?

A. I don't remember; it was brought about by other parties; I do not remember just how it happened.

X Int. 116. By whom was it brought about?

A. I think by Samuel Moore.

X Int. 117. Any one else?

141 A. I do not remember any one else at the time; I do not remember the details of the thing at all.

X Int. 118. Who is Samuel Moore; where does he reside?

A. I could not say where he does reside now.

X Int. 119. Give his last place of residence known to you.

A. Milford, Connecticut.

X Int. 120. Did Mr. Samuel Moore introduce you to Mr. Thompson?

A. He did not.

X Int. 121. In what way did Mr. Samuel Moore bring about the sale of the patent to Mr. Thompson?

A. He told me that he thought Mr. Thompson would buy it from me.

X Int. 122. Did you first tell Mr. Samuel Moore that you was the owner of the invention embraced in the patent?

A. I don't know who did first tell him.

X Int. 123. Did Mr. Samuel Moore first seek you to effect the purchase of the patent for Mr. Thompson, or did you seek him?

A. There was no seeking about it.

X Int. 124. You mean that Mr. Moore did not apply to you and that you did not apply to him?

A. That is just exactly what I mean.

X Int. 125. Then how did M. Moore bring about the sale of the patent?

A. I don't remember exactly; It came up in general conversation.

X Int. 126. Please to relate all the circumstances attending the sale of the invention and patent to Mr. Thompson.

A. I think all there was about it was that he knew the invention was mine, and told me that he thought Mr. Henry G. Thompson would purchase if I would sell. Not having any more money than I wanted at that time, I sold.

142 X Int. 127. How did Mr. Moore know that you claimed to be the inventor of the invention embraced by the patent?

A. He could tell more about that than I. I don't know where he did first receive his information.

X Int. 128. To whom did you first claim to be the inventor of the improvement in nippers embraced by the patent?

A. I could not say.

X Int. 129. State to whom you first claimed the invention in question of whom you have any recollection.

A. I always supposed it was generally considered by the men in the employ of Interchangeable Tool Company and others that it was my invention from the making of the model, Exhibit C, and spoke of it to several in a general way. I don't know that I absolutely claimed it to any one in particular, and could not state who the first person was I talked about the matter with.

X Int. 130. Can't you recollect the name of any person to whom you claimed to be the inventor of the improvement in the nippers claimed in the patent?

A. Yes; I can remember several.

X Int. 131. Please to give their names.

A. Mr. E. A. Whittlesey, Mr. Charlie Church, Thomas Thomson, Samuel Moore, and I don't know how many others. I think I was talking with Mr. F. A. Pratt, of the Pratt & Whitney Company.

X Int. 132. Which of the persons you have named did you speak to first about the invention, claiming it to be yours?

A. I do not remember.

X Int. 133. When did you first claim the invention as yours to any of these gentlemen?

A. I could not state the time; I have got nothing to locate it by.

X Int. 134. When did you speak to Mr. Whittelsey about the invention, claiming it to be yours?

A. That I could not say.

X Int. 135. Are you certain that you claimed the invention as yours to Mr. Whittelsey?

143 A. I would not swear that I did, in so many words.

X Int. 136. Where was Mr. Whittelsey when you was talking to him about the invention and claiming it to — yours?

A. He was in New York.

X Int. 137. Whereabouts in New York?

A. That I don't remember; it was somewhere in the city. It was talked about in a general way and I don't remember the time.

X Int. 138. Who is Mr. Whittelsey and where does he reside?

A. The last I knew of him he was in Brooklyn, eastern district.

X Int. 139. Was Mr. Whittelsey employed by the Interchangeable Tool Company at the time you were employed by it?

A. Part of the time.

X Int. 140. Was he there when you made the model, Exhibit C?

A. He was.

X Int. 141. Did he work in the same room with you?

A. He did.

X Int. 142. Saw you at work upon the model?

A. I suppose he did.

X Int. 143. How near did he work to you?

A. He worked at the next vise.

X Int. 144. How far was his vise from yours?

A. His vise — in front of one window and mine in front of the next one—six to eight feet apart, or about that.

X Int. 145. Did Mr. Whittelsey room with you at the hotel?

A. He did not.

X Int. 146. Did you not say that Mr. Whittelsey was your room-mate?

A. Not at the hotel.

X Int. 147. Was he your room-mate anywhere?

A. He was.

X Int. 148. During the time that you were working
144 together at the shop of the Interchangeable Tool Company?

A. During a portion of the time; not all the time.

X Int. 149. Was he your room-mate during that portion of the time you was engaged in making the model C?

A. He was.

X Int. 150. At the time you sold your patent to Mr. Tompson did you tell him that some one else had offered you five hundred dollars for it?

A. I don't remember that I did.

X Int. 151. Do you swear that you did not?

A. I will not swear that I did not; I don't remember; I don't think I ever did.

X Int 152. As matter of fact, did any — else offer to purchase the patent of you?

A. I had talked with other parties.

X Int. 153. Who were they?

A. I don't know that they would care to be brought into the case.

X Int. 154. Do you decline to answer?

A. I had a talk with Mr. William M. Woodruff, of Hartford, Conn.

X Int. 155. How long before you sold it to Mr. Thompson?

A. That I don't remember exactly. The conversation I had with him was at Milford. I don't remember the day he was there; probably the hotel register will show his name.

X Int. 156. Did he make you an offer for the patent?

A. I don't know that he did.

Adjourned to Nov. 18th, 1881, at 9.30 a. m.

FRIDAY, *November*, 18*th*, 1881—9.30 a. m.

Met pursuant to adjournment.

Present: Same parties.

Cross-examination of MOSES C. JOHNSON continued:

X Int. 157. Do you swear that he did not.

145 A; No; I will not swear that he did not. I do not remember.

X Int. 158. How large was the room in which you worked for the Interchangeable Tool Company in New York?

A. I don't know. I never measured the room; never had any occasion to measure the room. I should say it was about 25 x 40. It might be more or less.

X Int. 159. That is the best of your judgment, is it?

A. It is.

X Int. 160. How many men were employed in that room at the time you was employed there?

A. There were different numbers. When I first went there there — very few—two or three. Later there might have been ten, more or less. I don't remember the number. I had no reason to count them.

X Int. 161. Give the names of the persons who were employed in that room during the time of your employment there.

A. J. M. Adams, myself, Mr. L. Smith, Mr. E. A. Whittelsey, Mr. Pope, Mr. F. K. Hills, Charles Ashley, and some others. I do not remember their names.

X Int. 162. This room in which you worked, did it face towards Hudson St.?

A. It did.

X Int. 163. And was the vise bench along that side of the room next to the street?

A. A part of it.

X Int. 164. How much of it?

A. Probably at least three-quarters of it. I never measured the bench and don't know the length.

X Int. 165. How many vises were there on that part of the bench that was along the room, facing Hudson St.?

A. I think three; might have been four.

X Int. 166. Don't you know exactly how many there were?

A. I did at the time.

146 X Int. 167. Don't you know now how many there were? Can't you recollect?

A. As I said in a previous answer, there were three; might have been four. I think three.

X Int. 168. Are you sure there were no less than three and no more than four?

A. My previous answers are all I know about it and as near as I know about it.

X Int. 169. Question repeated.

A. I have answered the question to the best of my ability.

X Int. 170. Did you work on one of those vises?

A. I did.

X Int. 171. Did you have one of the middle vises or one of the end vises—supposing there to have been more than three?

A. I did not have one of the middle vises. The bench run parallel with the street, and I had an end vise.

X Int. 172. Which end of the bench was it?

A. North, I should say—the uptown end.

X Int. 173. Who worked at the vise next to you, on your right?

A. I think it was E. A. Whittelsey.

X Int. 174. Was there any vise at your left?

A. Not on the bench running parallel to Hudson St.

X Int. 175. Was there any vise to your left on any bench?

A. There was.

X Int. 176. Who worked on that vise?

A. I think James Courtney the biggest part of the time.

X Int. 177. Who worked on the vise next to Mr. Whittelsey, on your right?

A. Different ones worked at that vise. Mr. Adams worked there some. Mr. Pope and Mr. Whittelsey at different times.

147 X Int. 178. Whose vise was that—I mean who was it that usually worked at that vise most of the time?

A. I think Mr. Adams, but couldn't say. I didn't keep the number of days that any one person worked at it.

X Int. 179. But that was the vise that was generally recognized as Mr. Adams' vise, was it?

A. I think it was.

X Int. 180. Who worked at the next vise on your right, next to Mr. Adams' vise?

A. I don't remember that there was any vise there. There might possibly have been one. I don't recollect it.

X Int. 181. Was there any vise to the left of the one that Mr. Courtney worked on?

A. I have no recollection of any.

X Int. 182. On what vise did Dr. Mr. Pope work?

A. Possibly he might have worked on what has been called here Mr. Adams' vise. He worked at a machine the biggest part of the time.

X Int. 183. To the best of your judgment, how far was Mr. Courtney's vise from yours?

A. I should say, on a diagonal line, between four and six feet. That is the best of my judgment.

X Int. 184. By a diagonal line you mean across the corner of the shop?

A. I mean bee line—the shortest distance to get to it across the corner of the shop.

X Int. 185. About how far were the vises apart that faced on Hudson street, to the best of your judgment?

A. I never measured the distance, but should say from six to eight feet. It might be more or less.

X Int. 186. What machine did Mr. Pope work on?

A. The planer the biggest part of the time; the planer or shaping machine.

X Int. 187. How far was that from your vise? State as near as you can judge.

A. My best judgment would say ten feet; perhaps two feet more or two feet less, measuring in a bee line.

148 X Int. 188. Now, you have mentioned the vise of Mr. Courtney on your left, the vise of Mr. Whittlesey on your immediate right, and the vise of Mr. Adams, immediately to the right

of Mr. Whittlesey. That is three vises besides your own. Were there any other vises in the shop that you recollect of?

A. In this room it is possible there might have been one more; I don't recollect; couldn't state.

X Int. 189. Wasn't there a vise in that room on which Louis Smith worked?

A. I think he worked at what has been called here Courtney's vise after Courtney had left it.

X Int. 190. When did Mr. Courtney cease to work on that vise, and when did Mr. Smith begin to work there?

A. That I don't remember and I couldn't say. There are no reasons why I should remember.

X Int. 191. You say you went to work for the company about the 20th of April, 1879. Was it in this shop in Hudson street that you first worked after going into the employ of the company?

A. It was.

X Int. 192. And was Mr. Courtney at work on the vise to your left when you went there, or did he come there after you went to work?

A. He came several weeks after I went to work; how many I don't know.

X Int. 193. Was Mr. Courtney the first person that worked at that vise after you went there?

A. That I couldn't say.

X Int. 194. Was there any one at work at that vise when you went there?

A. I think not.

X Int. 195. Are Smith and Courtney the only persons who worked on that vise during the time that you was there?

A. I think not.

X Int. 196. Who else worked on it?

149 A. Possibly I did a little job on it; I think I saw Mr. Gustam filing on it; different parties in the shop; I made no record of the names.

X Int. 197. Now, did not a person named George Silvia work at that vise?

A. Possibly he did; he could tell better than I.

X Int. 198. Don't you know that he did?

A. No, sir; I do not.

X Int. 199. Are you acquainted with George Silvia?

A. I am.

X Int. 200. Was he in your employ before he went to work for the Interchangeable Tool Company?

A. He had worked for me before.

X Int. 201. Was it through your instrumentality that he went to work for the Interchangeable Tool Company?

A. Mr. Adams hired him; I possibly recommended him.

X Int. 202. Now, do you swear that you do not recollect whether Mr. George Silvia worked on the vise to your left or not?

A. It is possible that he done short jobs in it; I don't know.

X Int. 203. Was he a vise hand?

A. He is a machinist, vise hand, machine hand, planer hand, general machinist, and tool-maker.

X Int. 204. Where is he—where does he reside, I mean?

A. I do not know.

X Int. 205. Where did he last reside, to your knowledge?

A. Brooklyn, New York.

X Int. 206. How long ago is that?

A. I don't remember the length of time; it was shortly after he left the employ of the Interchangeable Tool Company.

X Int 207. Where does Mr. Lewis Smith reside?

150 A. That I do not know; I heard he resided in Brooklyn.

X Int. 208. Who is Mr. Mat. Dimond?

A. Mr. Mat. Dimond was formerly a steel merchant in the city of Hartford; I do not know his pedigree.

X Int. 209. Where does he reside?

A. That I do not know; I have understood in New York city.

X Int. 210. Are you well acquainted with Mr. Mat. Dimond?

A. I consider myself so.

X Int. 211. And it was upon his recommendation that you visited New York and applied to the Interchangeable Tool Company for the position of superintendent, as I understand you?

A. It was through him that I first learned of the company.

X Int. 212. You say that he showed you a letter from one of the company. Who was that letter written by?

A. I didn't see the man write it; I think it was signed by A. Gustam.

X Int. 213. Did you keep the letter or did Mr. Dimond keep the letter?

A. I don't remember that I ever had the letter.

X Int. 214. Didn't you have the letter in your hands when he showed it to you?

A. I don't remember that I did; I am under the impression that he retained the letter in his own hands.

X Int. 215. Didn't you read the letter?

A. Mr. Dimond read the letter; I think he showed me in the letter some references where they had referred to some bank as regards their standing.

X Int. 216. Did he show you Mr. Gustam's signature and name signed to the letter?

A. I think he did; I would not be positive; he gave me Mr. Gustam's address.

151 X Int. 217. And you say that was the latter part of September, 1878, and that, about the first or second of October, 1878, you visited New York and called at the company's office, No. 71 Broadway, and that you there saw Mr. Gustam. Did you see any one else at that time in the office of the company, 71 Broadway, beside Mr. Gustam?

A. It is possible I might have seen some one. The office was divided, if I remember right, by a partition running parallel with Broadway. I saw Mr. Gustam in the front portion of the office. In order for me to get into the front portion I had to pass through the

other, and I might have seen some one there. I couldn't swear if I did or not.

X Int. 218. How long was you at the office at that time?

A. I don't remember the length of time; possibly an hour.

X Int. 219. What time in the day was it?

A. I should say in the middle portion of the day; perhaps just before twelve. I made no record of it at the time.

X Int. 220. At the time you were there did you talk with any one else about the nipper beside Mr. Gustam?

A. I do not remember that I did.

X Int. 221. Was any one present?

A. I don't remember of seeing any one.

X Int. 222. You say Mr. Gustam, at the time you visited the office of the company, about the first or second of October, showed you one of the company's nippers. Was the nipper he showed you anything like this, Hall's Exhibit No. 8?

A. It was a very similar nipper, with the exceptions of the straight piece of wire between the jaws immediately below the cutting edges, which was not in the one I saw there. To accomplish the purpose of this wire the nipper which I saw had a screw with a taper
152 head about the position of the slot shown in the top of the plate shown in Hall's Exhibit No. 8.

X Int. 223. Are you sure that you saw that nipper fitted with the screw, having a taper head running across the throat of the nipper in about the place where the recess is cut in the side plates of the nipper, Exhibit No. 8, at the office of the company, No. 71 Broadway, New York, about the first or second of October, 1878?

A. I did not take the screw out of the nipper or remove it or the piece running across; possibly it may have been a straight pin or a taper pin; possibly it wasn't a screw.

X Int. 224. Can you swear whether it was a pin or a screw?

A. I did not see the piece removed, and have no way of knowing whether it was a screw or a pin.

X Int. 225. If it was a screw there would have to be some means provided for screwing it in its place. Now, was there any means by which a screw-driver or a wrench could be applied to screw the pin or screw in, whichever it may have been?

A. I don't remember of any slot; do not locate it.

X Int. 226. Was there any means of applying a screw-driver or a wrench that you recollect of?

A. I had no reason for taking it apart and consequently did not use a screw-driver or wrench, and would not have been apt to notice whether there was any provision for it or not.

X Int. 227. I did not ask you if you took it apart or not. I asked you if there was any means of applying a screw-driver or wrench, that you recollect of, to that pin or screw, whichever it may be.

A. I do not recollect.

X Int. 228. Why did you describe it as a screw?

A. I should have described it as a screw or pin at the time.

X Int. 229. If it was a pin how was it kept in its place?

153 A. I should naturally suppose by friction.

X Int. 230. How long would it stay in place, held there by friction merely?

A. I have no way of knowing that.

X Int. 231. Where and when did you first meet Thomas G. Hall, the other party to this interference?

A. To the best of my recollection, about January, 1879, at Jencks' shop, corner Centre and Hester streets, New York.

X Int. 232. You did not fully answer my question 223. I asked you whether you were sure it was on the first or second of October that you saw the nipper at 71 Broadway, at your interview with Mr. Gustam. What I wanted to know especially was whether it was upon either of those days that that visit occurred?

A. I have no memorandum of the dates. I could not swear that it was either first or second. I state the date as nearly as I can recollect.

X Int. 233. Upon your visit to New York at that time at what hotel did you put up?

A. At the Revere House, corner of Houston and Broadway.

X Int. 234. Did you go to the company's office immediately upon your arrival, before you went to your hotel?

A. I think I did. I do not remember positively.

X Int. 235. After you left the company's office that day where did you go?

A. I do not remember distinctly. I went to several places in New York. I keep no diary of each day's happenings.

X Int. 236. Did you go to the Revere House on that day?

A. Possibly. I do not remember; think I was there that evening. The hotel register would show that.

154 X Int. 237. Did you register your name there at the Revere House on the day that you called at the company's office?

A. I think I did.

X Int. 238. Who was with Mr. Hall when you first met him?

A. I remember no one, unless it might be Mr. Jencks. I have no distinct recollection of any one.

X Int. 239. Did you have an interview with Mr. Hall at that time?

A. I think we had some conversation when we first met.

X Int. 240. What was it about?

A. About the making of a nipper for a model.

X Int. 241. How long had you been at work for Messrs. J. H. Jencks & Co. before you commenced to make the model nipper for Mr. Hall?

A. I commenced work for J. H. Jencks & Co. in the month of October, 1878; this model referred to I commenced work on or about January, 1879.

X Int. 242. State about what time in January you commenced work upon that model.

A. That I could not state. Their time book will tell that.

X Int. 243. I have not got their time book to put in evidence. Please to state, as near as you can recollect, what time in January it was.

A. I could not state the exact time or probably within one or two weeks of it. I should say it was within one or two weeks of the first of January, 1879. It might have been two weeks before or two weeks after; that I could not state. I do not keep my own time; never have.

X Int. 244. Then, as I understand you, you are not certain whether it was in January, 1879, or December, 1878, that you commenced to work on this model nipper that was made at J. A. Jencks'?

A. I am not certain.

X Int. 245. When did you get the model completed?

155 A. Near the first of February, 1879.

X Int. 246. Was it before the first of February or after the first of February that you got it completed?

A. It was about the first of February; it may have been two or three days before and it may have been some time after. The company had a bill and that would state it.

X Int. 247. Did you work at the nipper during the whole of the time, from the time you commenced it until you got it completed?

A. That I couldn't state without referring to Jencks' time book.

X Int. 248. Did Mr. Hall furnish you the parts of which the nipper was made?

A. He brought some of them himself personally; think he sent me some pieces by a young boy, a stranger to me.

X Int. 249. I asked you if Mr. Hall furnished them; I did not ask you if he brought them himself or if he sent them.

A. I don't know who furnished them; I know he brought the pieces there—some of them.

X Int. 250. What pieces did he bring there?

A. He brought jaws, handles, and in fact I think he brought one of each piece that the nipper was then constructed of; possibly two of each kind.

X Int. 251. What alteration did you make in the parts or any of them that Mr. Hall furnished you to make the nipper of?

A. I made the long end of the jaw lever a trifle longer by dovetailing a piece onto the end.

X Int. 252. What was the piece that you dovetailed onto the end; was it brass or iron or steel?

A. Steel.

X Int. 253. Where is that model?

A. I do not know; I suppose the company have it.

X Int. 254. Where did you last see it, and when?

156 A. It was in New York, at their shop, that I last saw it; the date when I saw it I do not remember; the model was not used.

X Int. 255. State when it was, as near as you can recollect, that you last saw it at the company's works, and state in whose possession it was.

A. As near as I can recollect, it was in January, 1880; it was in the possession of no one; it was lying about the shop.

X Int. 256. Now, are you certain that you called at the company's office, No. 71 Broadway, before you saw Mr. Hall at Jencks & Co.'s,

corner of Centre and Hester streets, and are you sure that you did not call at the company's office, at the time you did call, at the request of Mr. Hall?

A. I called at the company's office the October previous to my acquaintance with Mr. Hall; I also called there again some time after my acquaintance with him, at his request.

X Int. 257. Referring now to model, Johnson's Exhibit C, how long had you been in the employ of the Interchangeable Tool Company when you made this model?

A. About two or three weeks.

X Int. 258. Can you state if it were two or three weeks?

A. I cannot; I made no memorandum at the time.

X Int. 259. Which part of this model, Exhibit C, did you make first?

A. I think I made the brass handles first?

X Int. 260. After you had made the brass handles how long was it before you made the jaws or fitted the jaws to the handles?

A. Directly after.

X Int. 261. And you made them, you say, out of some old jaws which you found lying around in the shop?

A. That was what I said.

X Int. 262. After you had made this model did you then
157 alter the model that you had made at Jencks & Co.'s so as to make the lock connection between the handles as shown by this model?

A. I did not alter the model.

X Int. 263. Was the model not altered?

A. I made two new handles for the model.

X Int. 264. What did you make the two new handles for?

A. For the reason that Mr. Adams requested me to.

X Int. 265. Were the two new handles that you made the same as the old handles?

A. They were not after I got them completed.

X Int. 266. How did they differ from the old handles?

A. There were several teeth on each handle; two or more; said teeth were concentric with the screw or stud on which the handle moved, these teeth to act as gears. The movement of one handle would necessitate the movement of the other.

X Int. 267. And that made a cog connection between the two handles, as I understand it?

A. That made the cog connection; yes.

X Int. 268. These two new handles, as I understand you, were fitted in the model which you made while in the employ of J. H. Jencks & Co. Is that correct?

A. They were fitted to that model.

X Int. 269. And was not that an alteration of that model?

A. I altered no pieces belonging with that model; these pieces were additional pieces.

X Int. 270. Then you don't consider the putting in of new handles of different shape an alteration of the model?

A. I don't consider it altering any of the parts of the model.

X Int. 271. Now, after you had the model, Exhibit C, made, and before you put the new handles in the model you made at J. H. Jencks & Co., did you make a drawing of the nipper as it was to be made with the cog connection between the handles?

A. I never did, not for the company.

158 X Int. 272. I did not ask you if you made one for the company; I asked you if you made a drawing—I mean, of course, a working drawing.

A. I never did, to my knowledge. I may have made sketches for my own amusement, as one will show now in evidence.

X Int. 273. After the new handles had been put in the nipper made at J. H. Jencks & Co.'s did you make a drawing of the nipper then for yourself or for the company?

A. I did, several months after.

X Int. 274. How long after?

A. Possibly four months.

X Int. 275. Was that the first drawing you made of the nipper?

A. That was the first drawing I made of the nipper.

X Int. 276. After you had completed the model, Exhibit C, how long was it before you put the new handles in the nipper that was made at J. H. Jencks & Co.'s?

A. That I couldn't say. It was somewhere about that time. It was something I did not think of at that time.

X Int. 277. Somewhere about what time?

A. I should say it was nearly the fore part of May, 1879.

X Int. 278. Was that done before or after the model, Exhibit C, was made?

A. They were all done about the same time. I could not state positively. I have no means of knowing.

X Int. 279. You made both models, it appears. Now, don't you know which one you made first? You stated upon your direct examination that Exhibit C was the first working model you made of the movement of the invention. Now, was it immediately after the making of the model, Exhibit C, that you put the new handles into the model made at Jencks & Co.'s?

A. The model C was the first model I made embodying the

159 invention. The Jencks model had nothing whatever to do with this case, and the additions which were added to it were done as experiments, and the time of these alterations I could not positively swear whether it was before or after, but it was about the same time.

X Int. 280. Now, I ask you again whether the new handles having cog connection between them were put in the model that was made at Jencks & Co.'s after the model Exhibit C was made?

A. I have no means of knowing; I do not know.

X Int. 281. Did the model that was made at Jenks & Co.'s have the V-shaped spring set into a correspondingly shaped recess cut in the jaws below the throat of the nipper, as in Exhibit C?

A. I think there was some notches in the jaws that were put there at my suggestion.

X Int 282. Was there a lip at the head of the notches lapping over the ends of the spring that came together as in Exhibit C?

A. No.

X Int. 283. Now, after the Exhibit C was made, when was the first completed nipper made having the cog joint between the two handles and the spring set in as in Exhibit C?

A. I think it was in the month of July, 1879.

X Int. 284. Who made that nipper?

A. It was not made by any one man; several different parties worked on it. It was manufactured by the company on their machines and with their fixtures.

X Int. 285. How are the several parts of this nipper made—I mean the perfected nipper?

A. Made by machinery of different kinds.

X Int. 286. How are the parts originally formed before they are fitted together by machinery?

A. Some are formed by drop forging, some by being punched; other parts are made from the raw material.

X Int. 287. What parts of the nipper are made by drop forging, what parts by being punched, and what parts from the raw material?

A. The handles and jaws are drop forgings, the plates
160 are punched, the screws are made from the rod, the springs are made from sheet metal.

X Int. 288. Now, what do you mean by drop forgings?

A. Pieces that receive their shapes from sunken dies, said dies being put into a drop, one above and one below the other.

X Int. 289. Then, to make the jaws and the handles of these nippers, must there be a top and bottom die for each jaw and for each handle?

A. Not unless they break a die with each forging that is made in a die. There is one pair of dies for the jaws and one pair for the handles. There is a top and bottom die for the jaw and a top and bottom die for the handle.

X Int. 290. Now, after you had fitted the new handles in the model that was made at J. H. Jencks & Co.'s, did the company have a new set of dies made to make the jaws and handles of the nippers in to correspond with the nipper with the new handles?

A. I do not know whether they made a new set or altered the old ones.

X Int. 291. Do you know whether the several parts of the nipper were made to conform in shape and size substantially to the nipper with the new handles?

A. I know nothing about what was ordered; I know nothing about that at all; that would not come under my observation; the forgings came there.

X Int. 292. I asked you if the several parts of the nipper were made to conform in shape and size to the model that was made at the shop of J. H. Jencks & Co. after you put the new handles in at the works of the Interchangeable Tool Company.

A. I don't remember whether they were or not.

X Int. 293. After the new handles had been put in the nipper of the model made at Jencks & Co.'s, did all the nippers made
161 by the Interchangeable Tool Company have the cog connection between the two handles and the spring fitted in between the jaws, as shown by the model, Exhibit C?

A. I think all the nippers manufactured by the company did have—all that were manufactured—to my personal knowledge.

X Int. 294. Now, don't you know, as a tool-maker, that the nipper with the cog connection between the handles and the spring fitted in between the jaws, as in Exhibit C, couldn't be made from the pieces or parts forged for the old nipper?

A. I don't think they could be. Of course, they could be by blacksmithing and throwing the stock out; it could possibly be done, but it is not at all likely that it was done.

X Int. 295. Now, don't you know of your own knowledge how these nippers were made by the Interchangeable Tool Company?

A. I know how they were made—that is, the work that was done inside of their shop.

X Int. 296. Will you swear that you don't know how the forgings were made?

A. I think I will swear to that; I don't know as I ever saw one made; I mean I don't know as I saw a nipper forging made.

X Int. 297. Didn't you visit Colt's factory here in Hartford and give directions about the making of the dies in which this nipper were to be forged?

A. I did not.

X Int. 298. Did you never have any conference with any one in Colt's factory about making the dies for these nippers?

A. I don't think I was in Colt's factory from the time of my first connection with the company until the following February; that would be February, 1880.

X Int. 299. Do you not know, of your own knowledge, that to change the nipper from the plan shown by Hall's Exhibit
162 No. 8 to the plan of Hall's Exhibit No. 10 it would be necessary to change the dies to make the handles and jaws in?

A. I should say it would.

X Int. 300. Don't you know, of your own knowledge, that after the model made at Jencks & Co.'s had the new handles put in that the nippers made by the Interchangeable Tool Company were made to conform to that model?

A. No, sir. They were not made to conform to that model. As I understand, you mean the Jencks model after it was altered.

X Int. 301. How did they differ from that model?

A. In the first place, the handles had two or more teeth on one, three or more on the other; the shape of the jaw was entirely different.

X Int. 302. How was the shape of the jaw different?

A. It was a different shape on the inner side; I don't carry in my mind the exact shape of the jaw.

X Int. 303. If you knew it was a different shape you certainly knew what the difference was. Please to state how it differed.

A. The long end of the jaw lever was more hooking at that part where it came in contact with the handle lever.

X Int. 304. Then, as I understand you, the difference between the model made by Jencks & Co., after the handles were put in, and the nipper as made by the company consisted in the fact that the Jencks model had more cogs between the handles and differed somewhat in the shape of the jaw lever?

A. The Jencks model did have more cogs between the handles than the nipper which the company after that manufactured.

X Int. 305. Please to look at the nipper, Hall's Exhibit No. 10, and state whether that is like the nipper produced by the Interchangeable Tool Company after the change had been made in the Jencks nipper.

163 (Question objected to as misleading to witness and as associating the finished nippers, Exhibit No. 10, with the altered Jencks model, with which it is not shown to have anything in common.)

A. This is like a nipper produced by the company some time after the alteration in the Jencks nipper. It is not like those that were produced immediately after. The die for punching the plate has been changed. The shape of the die has been changed from the style of plate they were using immediately after they commenced to turn off finished nippers.

(Objection withdrawn.)

X Int. 306. How does the form of the side plate on the nipper, Exhibit 10, differ from the side plate of the nipper made immediately after the alteration was completed in the Jencks model?

A. The top of plate of Exhibit 10 is a curved line, whereas in the original plates, or those that were used immediately after the alteration of the Jencks model, the top was formed by two straight lines, one running at an angle to the other.

X Int. 307. How do the handles and jaws of the nipper, Exhibit 10, differ from the jaws and the handles of the nippers produced by the company immediately after the change had been made in the Jencks' model, if they differ at all?

A. There has been a stop screw added to the handle in this nipper, Exhibit No. 10, since the first they constructed.

X Int. 308. How many nippers did the company make with the style of side plate that was first adopted and without a stop screw in the handle?

A. I have no means of knowing; I do not know.

164 X Int. 309. How many sizes of nippers did the Interchangeable Tool Company make during the time you were in its employ?

A. They manufactured only two sizes, to my knowledge, for the market.

X Int. 310. What sizes were they?

A. I think it is what is known as the No. 2, or 5-inch, and a No. 4, or 7-inch.

X Int. 311. Which did they manufacture first?

A. The first I saw manufactured was the No. 2, or 5-inch.

X Int. 312. Are not the jaws of these nippers cut out by milling tools after being forged, the milling tools being made to conform exactly to the desired shape of the jaw?

A. The jaws are milled.

X Int. 313. Are they milled as I described in my last question?

A. They are milled to fit gauges or templates.

X Int. 314. Well, what gauges and templates?

A. These mills were made from this model, Exhibit C, which is the first and only model of this sized nipper combining the patent now in interference.

X Int. 315. Then, as I understand you, in the manufacture of these nippers, first you make a model from which you make gauges or templates, then you make the milling tools and the fixtures. Is that the way you proceed?

A. That is the proper way.

X Int. 316. Is that the way the Interchangeable Tool Company made the nipper?

A. The Interchangeable Tool Company did not make the nipper in this way when they first started at Hudson street.

X Int. 317. How did the Interchangeable Tool Company make the nipper when they first started at Hudson street?

A. They started to make them before they had their gauges.

165 What gauges were made were made after the milling had commenced, and they were very few for his sized nipper—I mean the No. 2 or 5-inch nipper.

X Int. 318. Do you mean to be understood as saying that the Interchangeable Tool Company made or caused to be made the milling tools to make this nipper before it had templates made after the model nipper?

A. I mean to say that the mills were made from this model, Exhibit C. The profile of the jaw and handle was the only gauge the mills were formed to.

X Int. 319. Was there a template made of the model, Exhibit C?

A. It is possible there might have been of the inside of the jaw.

X Int. 320. Is the outside of the jaw and the inside of the jaw both cut by the same milling tool?

A. They are not.

X Int. 321. Wasn't it necessary to make a template of the outside of the jaw to make the milling tool by which that was formed?

A. It was not. It was not necessary to make a template of the inside to make the milling tool by. The mills could be made from the model, as they were.

X Int. 322. Was the milling tool or tools by which the jaws of the nippers, Exhibit 10, were cut made from the jaws of the model, Exhibit C?

A. They were.

X Int. 323. When were those milling tools made?

A. Some time during the month of May or early June, 1879. We were quite a while on them—some weeks.

X Int. 324. Were not these jaws of Exhibit C milled by the same tools that the jaws of Exhibit 10 were milled by?

A. I filed the jaws of Exhibit C. They were not milled. It is possible after starting the mills and the fixtures I used one of these jaws to locate my cuts, and possibly the mill has touched the jaw in profile. Probably it did. It was used for that purpose. The other, I think, was not used for this purpose.

166 X Int. 325. Please to look at the jaws of this model, Exhibit C, and tell me if the marks of the milling tools are not on it as plainly almost as if it had just come out of the milling tool?

A. I know of no reason why they shouldn't be, as my previous answer would state how they came there.

X Int. 326. Was the jaw of the model, Exhibit C, the shape it is now when you put it in the milling fixtures?

A. Generally speaking, it was.

X Int. 327. How did you fasten it in the milling fixture?

A. It was fastened in the regular way, like all other work. It was a milling-machine fastening—a milling-machine vise.

X Int. 328. The jaws of this model, Exhibit 10, being cut by the milling tools formed after the jaws of Exhibit C would make the profile of the two jaws just alike, wouldn't it?

A. It would if it had been milled immediately after the jaw of Exhibit C had passed under the mill. I couldn't state how many months after the jaw of model C passed under the mills before the jaws of Exhibit 10 were milled.

X Int. 329. You say that you made the jaws of Exhibit C out of a pair of jaws that were in the shop at the time that you went there. Now, how was it possible for you to make these jaws out of a pair of jaws that the company had at the time you went there when, in fact, the jaws of which you say you made these were shorter than these jaws are—these jaws conforming in length to the jaw of the old nipper after you have dovetailed a piece on the long end, as you state that you did with the model at J. H. Jencks & Co.'s?

A. These jaws were made with a file, and I removed as little stock as possible from the back or outer profile of jaw, throwing all my surplus stock onto the inside. It is possible I might have heated and drawn them in the fire, as they were somewhat thicker than now.

167 X Int. 330. Did you, in point of fact, heat them and draw them in the fire?

A. I do not know that I did. If they were deficient anywhere, I do not know that I used the surplus stock to make up the deficiency, and probably at this time used my own judgment of which would be the proper way of utilizing this stock. By this stock I mean the surplus stock.

X Int. 331. If there was surplus stock enough in the nipper jaw to enable you to make the jaws of Exhibit C long enough, why couldn't you make the jaws that you made at Jencks & Co.'s long enough without dovetailing a piece on them?

A. For the reason that the holes on which the jaws swing were already drilled in these said jaws when I received them.

X Int. 332. Why didn't you get a pair in which the holes were not drilled?

A. I tried to.

X Int. 333. And couldn't you succeed?

A. I did not.

X Int. 334. To whom did you apply for a pair of jaws in which the holes were not drilled?

A. To Mr. Jencks and Mr. Thomas G. Hall.

X Int. 335. Were the holes drilled in the jaws out of which you made the jaws of Exhibit C?

A. I drilled the holes myself.

X Int. 336. Do you know, of your own knowledge, that the jaws of the old nipper out of which you made the jaws of Exhibit C possessed no surplus stock, any more than was just necessary to clean it up in the milling tool?

A. In some spots it was deficient and in others there was a surplus.

X Int. 337. Did you not advise the company that they would have to throw away their old jaw dies and have new ones made to get the necessary stock in them to make the nipper after the new pattern or model?

168 A. I think I did.

X Int. 338. Why did you do that in face of the fact that you found all the stock necessary to make the nipper jaw of the model, Exhibit C, in the old forging?

A. Because it would not be practical to do this on a large quantity; and, another reason, the jaws, in order to be milled, must have surplus of stock enough to allow the mills to go below the forging scale.

X Int. 339. So you advised the company to throw away all of the stock of jaws they had on hand and have new jaw dies made, so you could have plenty of material to cut away with a milling tool?

A. I think I did advise them to do this, in order that they should have enough material to cut away.

X Int. 340. Who was present when you made this model, Exhibit C?

A. There were different ones present at different times while I was engaged in making it. I think Mr. J. M. Adams, Mr. E. A. Whittelsey, Mr. A. Gustam, and possibly some members of the company other than Mr. Gustam.

X Int. 341. Was Mr. Courtney present working in the shop at the time you made that model?

A. He was not.

X Int. 342. Was Mr. Pope?

A. He was not.

X Int. 343. Was there any other workmen besides yourself and Mr. Adams?

A. I have stated the fact that Mr. Whittelsey was there present.

X Int. 344. Did Mr. Whittelsey see the model?

A. To the best of my knowledge and belief, he did.

Adjourned, at 4.20 p. m., to Saturday, Nov. 19th, 1881, at 9.30 a. m.

169 SATURDAY, *Nov. 19th*, 1881—9.30 a. m.

Met pursuant to adjournment.

Present: Same parties.

Cross-examination of MOSES C. JOHNSON continued:

X Int. 345. In answer to question 52 of your examination-in-chief you say there was an experiment made in the Interchangeable Tool Company's shop, which consisted in boring two or more holes in one handle of a No. 4 or 7-inch nipper and three in the other. Please to look at these exhibits, No. 3 and No. 3x, and state if you identify them as the handles in which the experiment was made.

A. I have seen such handles. There is no peculiar mark about these which would lead me to identify them as the same. Their general appearance would lead me to say they were the same handles which I had seen.

X Int. 346. Was that experiment made before or after the model, Exhibit C, was made?

A. I think after; about the same time. I have nothing to fix any date.

X Int. 347. Why did the company cause a rude experiment like that to be made after the model C was made?

A. I don't think the company caused it to be made.

X Int. 348. Who made it?

A. The putting in of the pins, it is possible I done it myself, or perhaps Mr. Adams did it; I wouldn't say positively, or perhaps Mr. Whittelsey done it.

X Int. 349. They were all there at that time, were they?

A. To the best of my knowledge and belief, they were.

X Int. 350. Why was it done at all?

A. There was not stock enough on the handles to make a cog connection of the handle material.

X Int. 351. Why was the experiment made after model C was made?

170 A. I have not said it was made after model C was made.

X Int. 352. Do you say it was not made after model C was made?

A. I do not remember the exact time it was made; it was about the time model C was made; perhaps a little before or a little after, or at the same time. I am positively certain that it was not made at any suggestion of any member of the Interchangeable Tool Company or any of its officers.

X Int. 353. At whose suggestion was it made?

A. That I do not remember.

X Int. 354. How do you know it was not made at the suggestion of any member of the Interchangeable Tool Company or any of its officers?

A. I never remember any member of the Interchangeable Tool

Company making any suggestion in relation to improving the nipper of which there was a practical experiment made after my employment with them in April, 1879.

X Int. 355. They left the improvement of the nipper to be made by the men in their employ on their own motion, did they?

A. To the best of my knowledge and belief, they did. The men in their employ were left to do as they saw fit.

X Int. 356. You say in your examination-in-chief that the model, Exhibit C, was commenced and completed between the 10th and the 20th of May, 1879, and that the experiments with the handles, Exhibits 3 and 3x, was made about the first of June, 1879. Do you adhere still to that statement?

A. I do not know the exact time those handles were made, Exhibits 3 and 3x.

X Int. 357. Do you know whether or not, as a matter of fact, that you did put the pins in the handles, Exhibits 3 and 3x?

A. I do not.

171 X Int. 358. And you don't know who did, if I understand you?

A. No; I do not.

X Int. 359. And you don't know whether it was before or after model C was made?

A. No; I do not.

X Int. 360. And you don't know at whose suggestion it was done?

A. No; I am not positive.

X Int. 361. Who directed you to make Exhibit C?

A. I think I directed myself.

X Int. 362. Made it of your own motion, without direction of anybody?

A. I think I did.

X Int. 363. In the company's shop?

A. In the company's shop.

X Int. 364. In the company's pay?

A. A portion of it.

X Int. 365. Wasn't the whole of it made in the company's pay?

A. I think not; but if it had I don't see as it would make any difference as regards this case.

X Int. 366. What portion of the model do you think was not made in the company's pay?

A. I couldn't state.

X Int. 367. What did the company pay you for your services?

A. At the time model C was made I was receiving three dollars and twenty-five cents per day.

X Int. 368. Did not Mr. Adams direct you to make his model, Exhibit C?

A. I don't remember that he did.

X Int. 369. Will you swear that he did not?

A. I will not swear to that.

X Int. 370. Was not this model C, made in the company's shop and in the company's pay, the property of the company?

172 A. I have not stated that it was made entire in the company's pay or out of material belonging to the company, and if it had been the pieces and parts themselves might have been the property of the company, but the invention was mine.

X Int. 371. Have you been in possession of this model ever since it was made?

A. I have not.

X Int. 372. In whose possession has it been?

A. I don't know.

X Int. 373. How much of the time has it been in your possession?

A. That I don't know.

X Int. 374. When did it come in your possession?

A. At different times.

X Int. 375. When did it first come in your possession?

A. I have no record of the time.

X Int. 376. I didn't ask you whether you had a record, I asked you when it came in your possession?

A. I don't know.

X Int. 377. Did you take it with you from the company's shop?

A. No.

X Int. 378. Who took it from the company's shop?

A. I don't know.

X Int. 379. Don't you know how you came in possession of the model?

A. I came in possession of it at different times.

X Int. 380. I asked you how you came in possession of the model?

A. I am trying to answer the attorney's questions. My previous answers would show what I know of it.

X Int. 381. None of your answers show how you came in possession of that model. Please to state how you came in possession of it.

A. I came in possession at different times.

X Int. 382. Question repeated.

A. The answer is repeated.

173 (Counsel for Hall gives notice to counsel for Mr. Johnson that he insists on an answer to his question, and if the witness does not answer he will move to strike out the deposition.)

(Counsel for Johnson suggests to counsel for Hall that if he will ask the witness, in conformity with witness' answer that he came into possession of it at different times, at what times and how he came into possession of different parts of this model he may be more successful.)

X Int. 383. Does the witness decline to answer?

A. I am trying to answer correctly, and will do so. Different parties gave me different parts of the model at different times.

X Int. 384. Who gave you the handles of the model?

A. Mr. Adams gave me the stock they were made of from his private property, and I made them.

X Int. 385. I didn't ask you who gave you the stock, I asked who gave you the handles?

A. No one gave me the handles; I made them.

X Int. 386. Have you been in possession of the handles ever since you made them?

A. I haven't had them in my pocket; I have known where they were—that is, I am reasonably certain that I knew.

X Int. 387. Have they been in anybody else's possession since you made them beside your own?

A. They have been in the company's shop since I made them—I mean the Interchangeable Tool Company's shop.

X Int. 388. How long were they in the Interchangeable Tool Company's shop after you made them?

A. About one year; possibly a little less.

X Int. 389. Did you take them with you when you left the employ of the Interchangeable Tool Co.?

A. I took one of the handles with me.

X Int. 390. Which one?

174 A. One of the two; I have no means of knowing which of the two. It was one of those two.

X Int. 391. How did you get the other handle?

A. I think Mr. Louis Smith gave it to me.

X Int. 392. When?

A. I don't remember the month; possibly June, 1880.

X Int. 393. Was Mr. Smith then in the employ of the Interchangeable Tool Company?

A. I think he was; he told me so; I don't know positively that he was.

X Int. 394. When you left the Interchangeable Tool Company did you take the jaws of this model, Exhibit C, with you?

A. I had the jaws with me months before I left there, in my trunk.

X Int. 395. Did you keep them in your trunk and take them away with you when you left the employ of the Interchangeable Tool Company?

A. They have been in my trunk for months; of course, they must have been with me where I was. They were in my trunk at that time; that is what I mean to say.

X Int. 396. How long had they been in your trunk before you left the employ of the Interchangeable Tool Company?

A. I think I put them in my trunk in July, 1879—that is, about that month; I don't remember the exact time.

X Int. 397. Did they remain in that trunk from the time you put them there until you left the employ of the company?

A. I think they did. My wife has the key to my trunk. She possibly may have taken them out.

X Int. 398. Did the pieces continue to remain in your trunk after you left the employ of the Interchangeable Tool Company?

A. I think they did.

175 X Int. 399. Now, as to the side piece that holds the jaws, did you have that in your trunk also when you were at work for the Interchangeable Tool Company; did you put it in at the same time, and did it continue in your trunk till after you left the employ of the Interchangeable Tool Company, to the best of your knowledge and belief?

A. I think I did put it in about the same time.

X Int. 400. And after you got the handle from Mr. Louis Smith in 1880 you had all the parts excepting the screws and the spring? Where did you get them?

A. I had the spring in my possession from the time I made it, which was in May, 1879. The screws, I think, I had in my trunk; put them in about the same time. I was making drawings for milling fixtures for the company and I used these jaws for marking the outline and placing my fixture at the proper angle, &c.

X Int. 401. Did you have your trunk at the shop?

A. No.

X Int. 402. At the time you was making this model, Exhibit C, did you show it to Mr. Hall or any members of the Interchangeable Tool Company?

A. I don't remember that I ever showed any one a piece of work upon which I had worked or was working since I have been in the business, which is twenty years or more. I mean by that that I have not called their attention to it; they possibly have seen it—probably have. I am not in the habit of telling people of what I have done or am about to do.

X Int. 403. Did you call Mr. Hall's attention to the model, tell him it was your invention, and that you intended to get a patent for it?

A. I don't remember that I did.

X Int. 404. Did you call the attention of any member of the company to the model, claim it as your invention, and state your intention of applying for a patent for it?

176 A. I don't think I called the attention of any one to the model.

X Int. 405. How many nippers were made by the Interchangeable Tool Company from the plan of model Exhibit C during the time you was in the employ of the company?

A. I have no means of knowing that fact.

X Int. 406. Didn't you state that about thirty thousand had been made in your preliminary statement in this case?

A. I don't remember that I did.

X Int. 407. Well, don't you know about how many were made during the time you were in the employ of company?

A. I do not of my own knowledge. I know there were several thousand; how many I could not say.

X Int. 408. During the time you were in the employ of the company how many nippers were made upon the plan of Hall's Exhibit No. 8?

A. I don't remember of any.

X Int. 409. Please to take Exhibit B and read the letters and figures on the side of it upon which the pencil sketch is made so that the notary can write it down—the whole of it.

A. Room No. 177, October 10th, 1878. Mr. M. C. Johnson, Dr., to room rent one week to date, 3.50. Washing, carriage, expressage. Received payment. T. J. Coe & Son, per Utley. Johnson's Exhibit B, H. E. T., N. P.

X Int. 410. Is there a sketch in lead pencil on the side of the exhibit you have been reading illustrating the invention embraced in the model, Exhibit C?

A. There is a sketch of a portion of the model, Exhibit C. This sketch does not embrace the whole invention.

X Int. 411. What parts of the invention does it embraee?

177 A. The tooth and notch connection between the two handles.

X Int. 412. Doesn't it illustrate the spring in between the jaws?

A. I think there is a spring between the jaws.

X Int. 413. Doesn't it show the lips at the head of the spring, lapping over the upper ends of the spring?

A. I don't know that it does; think not.

X Int. 414. Please to look at it and see if it doesn't?

A. It does not. It was intended to represent a pin passing between the two jaws above the spring.

X Int. 415. Was this intended to be a sketch of the whole nipper with your alleged improvement applied to it?

A. It was not.

X Int. 416. What was it intended to represent?

A. It was intended to represent a movement by which the two cutting jaws would approach one another at a uniform speed.

X Int. 417. When did you make this sketch?

A. I don't know the exact date. It was made on a card which I had in my pocket, and to the best of my knowledge and belief it was made in October, 1878.

X Int. 418. Did you show it to any one at the time you made it?

A. I wouldn't swear positively that I did.

X Int. 419. To whom did you show it, if to any one?

A. I should say to Mr. O. D. Woodbury; as I have said before, I am not in the habit of showing what I am doing or going to do.

X Int. 420. Do you recollect showing it to any one else?

A. I have no recollections. It is possible the hotel clerks might have seen it.

X Int. 421. What hotel clerks do you refer to?

A. The Revere House; Mr. Utley or Mr. Carter.

X Int. 422. Is this exhibit made on one of the cards of the Revere House?

178 A. It was made on a card given me by a clerk at the Revere House.

X Int. 423. Doesn't this card upon its face purport to be the card of the Revere House, situated at the corner of Houston street and Broadway, in the city of New York?

A. Let me see the card. (After looking at it.) It does.

X Int. 424. Who is Mr. Charlie Church?

A. He was a draughtsman for the Pratt & Whitney Company, here in Hartford.

X Int. 425. Is he there now?

A. I think not.

X Int. 426. When did you tell Mr. Charlie Church that you were the inventor of the invention in controversy?

A. I don't know that I have stated that I did tell him that I was the inventor in so many words. I have stated that I had conversation with him in relation to the nipper, and it was upon a visit of his to the city of New York.

X Int. 427. Did you have more than one conversation with him upon the subject of the nipper?

A. I think I have.

X Int. 428. In those conversations did you claim to be the inventor of the nipper?

A. I don't know that I did in so many words. He could tell that, possibly.

X Int. 429. Was that before or after you left the employ of the Interchangeable Tool Company?

A. It was before, and after also.

X Int. 430. Give the dates of the respective conversations, as near as you can.

A. One of the conversations was while I was in the employ of the company at Hudson street, New York; the month or date I don't remember. I have met him several times since, the dates of which I don't remember.

179 X Int. 431. What did you say to him upon the subject of the nipper?

A. I don't remember the exact conversation. We talked together as two mechanics naturally would at meeting, one asking the other what he was about in his business, &c.

X Int. 432. When did you claim to Thomas Thompson to be the inventor of the invention in controversy?

A. I should say about April, 1880.

X Int. 433. When did you claim to Samuel Moore to be the inventor?

A. Possibly about the same time. I think a little earlier than April, 1880.

X Int. 434. When did you claim to Mr. F. A. Pratt to be the inventor?

A. Mr. F. A. Pratt, in my presence, asked Mr. J. M. Adams, at the Interchangeable Tool Company's shop in Hudson street, whose idea this improvement of the nipper was. Mr. Adams told him (Mr. Pratt) that he supposed it belonged to Carlyle, that being one of my Christian names.

X Int. 435. How many times were you in the employ of the Interchangeable Tool Company?

A. Two.

X Int. 436. Were you first journeyman, then foreman, then journeyman again?

A. Think I was.

X Int. 437. How did you come to leave the employ of the Interchangeable Tool Company?

A. I was discharged by Mr. Thomas G. Hall, who then was president of the company.

X Int. 438. Why was you discharged?

A. I couldn't tell that.

X Int. 439. Why did you leave the employ of the Frary Cutlery Company?

A. For the reason that Mr. J. B. Secor would pay me more money.

180 X Int. 440. Why did you leave the employ of Mr. Secor?

A. For the reason that my family were residing in Milford. Mr. Secor's shop being in Bridgeport, I had nine miles to ride each day on the cars. I thought it would be better to be nearer my business than what [where] I then resided. Not being particularly fond of the city of Bridgeport, I thought it would be best to move to the city of Hartford.

X Int. 441. Why did you leave the employ of Mr. Dwight Slate?

A. To engage in business for myself. Mr. Slate would like to have me remain with him.

X Int. 442. Referring again to the model made by you at the shop of J. H. Jencks & Co., in which you afterwards put a pair of new handles, did you make those new handles from forgings then in the possession of the company?

A. I think I did.

X Int. 443. How did you get the necessary material on the inside of those handles opposite the fulcra to make the gearing connection?

A. I think I obtained it by the use of a hammer to place the material in the proper place to form the teeth or cogs.

X Int. 444. Wasn't there a piece of metal brazed on the inside of the handle in which the gearing was made?

A. There was not.

X Int. 445. During the time you was in the employ of the company did you utter any protest to it or any of its officers against its use of the invention in controversy?

A. I do not know that I did. I felt safe, knowing the fact that I was allowed two years.

X Int. 446. During the time that you was in the employ of the company, as I understand it, you made this model nipper C,

181 and assisted in making the milling tools and milling fixtures necessary to make the nipper, and afterwards assisted in making a great many nippers for the company; is that correct?

A. Generally speaking, it is.

X Int. 447. Did you ever ask the company for any compensation for the use of the invention, or did you offer to sell it to them?

A. I have never offered to sell it to them, to my knowledge; don't know that I ever asked them for any compensation; knowing it to be my property, the proper opportunity for selling had not presented itself.

X Int. 448. When did you first show Mr. Henry G. Thompson the Exhibits B and C?

A. I couldn't state when I did; I do not know.

X Int. 449. Are the drawings you mentioned in your examination-in-chief the only ones you made for the company?

A. To the best of my knowledge and belief, they are.

X Int. 450. How long have you known Mr. A. Gustam?

A. I first met him about October 2d or 3d, in the year 1878.

X Int. 451. Is his name Gustam or Guttstam?

A. That I don't know; I have seen his signature Gustam; I don't [know] what his name is.

X Int. 452. What is his general character?

A. I know nothing of that at all. All I have heard is in his favor. Mr. Amos Whitney, of the Pratt & Whitney Company, spoke of him very highly to me.

X Int. 453. When did Mr. Whitney speak highly of him; how long since?

A. Some time in the early summer of 1881.

182 X Int. 454. Is Mr. Gustam a member of your company, the Hartford Duplicate Machine Tool Company?

A. He is not.

X Int. 455. Was he ever a member of that company?

A. He was.

X Int. 456. How did he come to be disconnected from the company?

A. I purchased his entire interest.

X Int. 457. Isn't it true that you and Mr. Brower discovered that he was a bad man, and that you put him out of the company?

A. It is not true that we put him out. I purchased his interest myself personally and paid him the money.

X Int. 458. Did Mr. Gustam hold any office in the company as it was originally organized?

A. He did; he was elected president.

X Int. 459. Did you afterwards discover any errors in his accounts?

A. I had nothing to do with the accounts of financial affairs.

X Int. 460. Did you know anything against Mr. Gustam's integrity and truthfulness?

(Question objected to by counsel for Johnson on the ground that Mr. Gustam has not been presented for examination as a witness in this case, and that it is only admissible to prove, even if he were, facts as to his general character and reputation and not specific facts, as called for by the question.)

A. I know nothing special against his character; I do not think he is infallible.

X Int. 461. Have you not told any one within a month that he was a fraud and had swindled your company?

A. No.

183 X Int. 462. Is your new company, "The Hartford Duplicate Machine & Tool Company," of which you are now superintendent, making preparations to manufacture the nipper described in your patent of October 5th, 1880?

A. No.

Cross-examination closed.

Redirect examination:

R. D. Int. 463. You have been asked various questions in your cross-examination with regard to parties with whom you might have had conversations relative to your invention or who had approached you with a view of becoming possessed of your rights; have you ever been approached by any of the members or officers of the Interchangeable Tool Company or their agents with a view to becoming possessed of your right to the invention in controversy in this interference?

A. I think I have.

R. D. Int. 464. Please state when, where, and by whom you have been so approached and the circumstances as near as you can recollect them.

A. I was approached in the city of Hartford by a man who claimed to be acting in the interest of the Interchangeable Tool Company, who wished me, in consideration of a sum of money, to sign certain papers which would virtually make my invention the property of the Interchangeable Tool Company. The time was about May 7th, 1881, possibly a day or two before. This man's name was Prescott; I do not know his whole name and can't give it; I think his initials are F. A.

R. D. Int. 465. What sort of a paper did he wish you to sign?

A. I made a copy of the paper at the time and showed it to other parties—Mr. Samuel D. Chamberlain for one, Mr. Theodore G. Ellis for another—and I have a copy of the paper, which I can read
184 and put in evidence. I showed both of these parties the original paper; I think also Mr. A. Gustam saw this paper.

R. D. Int. 466. Did you or did you not look upon the offer of a sum of money for signing this paper as a bribe to do a dishonorable action against the rights of Henry G. Thompson, the alleged owner of your patent?

A. I did look upon it as a bribe.

R. D. Int. 467. Did you sign that paper?

A. I did not.

Redirect examination closed.

Recross-examination:

R. X Int. 468. How much money did Mr. Prescott offer to give you?

A. He offered to give me two hundred and fifty dollars, and thought he might make it five hundred.

R. X Int. 469. Did he tender you the money?

A. He did not; no.

MOSES C. JOHNSON.

Subscribed and sworn to this 19th day of November, 1881, before me—

HENRY E. TAINTOR,
Notary Public.

Adjourned to Nov. 28th, 1881, 10 a. m.

185 MONDAY, *Nov. 28th*, 1881—10 a. m.

Met pursuant to adjournment.

Present: Same parties.

MOSES C. JOHNSON, witness for Johnson, reproduced for further cross-examination.

R. X Int. 470. Referring to Hall's Exhibits No. 3 and 3 X, state whether during the time you was in the employ of the Interchangeable Tool Company you made any nipper or nippers upon the plan of these exhibits—I mean with a gear connection between the handles, consisting of pins set in the handle opposite their fulcra—I mean, of course, complete finished nippers.

A. I don't know that I did.

R. X Int. 471. Do you recollect whether any nippers were made of that kind during the time you was in the employ of that company?

A. I recollect of seeing such nippers.

R. X Int. 472. Who made them?

A. I couldn't say who did put the pins in the handles.

R. X Int. 473. How many were made?

A. That I don't remember.

R. X Int. 474. Was there more than one pair of nippers of that kind made there?

A. I don't remember; possibly there might have been.

R. X Int. 475. When were they made?

A. I don't remember the date.

R. X Int. 476. Was it before or after making of the model, Exhibit C?

A. I don't remember; I think about the same time.

R. X Int. 477. What size of nipper was it?

A. I think it was what was known at that time as the 7-inch.

R. X Int. 478. Can you swear that there was more than one pair of such nippers made?

186 A. I cannot.

R. X Int. 479. Will you swear that you did not make them yourself—put the pins in the handles that formed the connection between their fulcra?

A. No; I will not; possibly Mr. Adams, Mr. Whittelsey, or myself.

R. X Int. 480. By whose direction were those nippers made?

A. I don't know; don't remember; possibly I suggested it.

R. X Int. 481. Do you swear that you did?

A. No.

R. X. Int. 482. Did the nippers referred to have the spring set in between the jaws in a recess having a lip projecting over the upper end of the spring?

A. I don't remember much about the nipper other than the pins.

R. X Int. 483. State, if you know, where that nipper is.

A. I do not.

R. X Int. 484. State when you last saw it.

A. I think in the summer of 1879.

R. X Int. 485. Where did you see it?

A. In the company's shop in New York.

R. X Int. 486. How many pins were put in the respective handles of that nipper opposite their fulcra to form the gear connection?

A. To the best of my recollection, I should say three in one and two in the other.

MOSES C. JOHNSON.

Subscribed and sworn to this 28th day of November, A. D. 1881, before me—

HENRY E. TAINTOR,
Notary Public.

187 STATE OF CONNECTICUT, } ss.:
County of Hartford, }

At Hartford, in said county, on the 28th day of November, A. D. 1881, before me personally appeared the above-named Moses C. Johnson and made oath that the foregoing deposition by him subscribed contains the truth, the whole truth, and nothing but the truth. The said deposition is taken at the request of Moses C. Johnson, at the time and place named in the notice hereto attached, to be used upon the hearing of an interference between the claims of Thomas G. Hall and those of said Moses C. Johnson, before the Commissioner of Patents, on the 16th day of February, A. D. 1882.

The said Thomas G. Hall was duly notified, as appears by the original notice hereto annexed, and attended by Amos Broadnax, his counsel.

Witness my hand and official seal, at said Hartford, this 29th day of Nov., A. D. 1881.

[SEAL.] HENRY E. TAINTOR,
Notary Public.

188 *Stipulation.*

United States Circuit Court, Eastern District of New York. In Equity.

HENRY G. THOMPSON
vs.
THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS.

In the above-entitled case it is hereby stipulated and agreed that defendants' testimony and proofs be taken and put in at the office of Horace Barnard, complainant's solicitor, No. 98 Broadway, in the city of New York, and that J. Edgar Bull, a notary public in and for the city and county of New York, be, and he is hereby, appointed special examiner to take said testimony and proofs, and that no exception will be taken to the same because they were not put in before a standing examiner of this court; and that the parties meet

at the office of Horace Barnard, aforesaid, at one o'clock p. m. on the 19th day of February, 1884, for the purpose of putting in said proofs, the examination to continue from time to time, by adjournment, until defendants' proofs are all in.

HORACE BARNARD,
Complainant's Solicitor.
AMOS BROADNAX,
Defendants' Solicitor.

189 *William Q. Judge's Direct.*

United States Circuit Court, Eastern District of New York, in the Second Circuit. In Equity, on Bill.

HENRY G. THOMPSON
against
THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS.

Testimony taken on behalf defendants in pursuance to equity rule 67, as amended, before J. Edgar Bull, special examiner.

NEW YORK, 19 *February*, 1884—1 o'clock p. m.

Parties met pursuant to the foregoing stipulation.

Present: Horace Barnard, Esq., for complainant; Amos Broadnax, Esq., for defendants.

Examination of witnesses adjourned by consent until Saturday morning, February 23d, 1884, at 11 o'clock.

NEW YORK, *February* 23, 1884—11 o'clock a. m.

Parties met pursuant to adjournment.

Present: Same counsel.

WILLIAM Q. JUDGE, a witness produced on behalf of defendants, being duly sworn, in answer to interrogatories propounded by Mr. BROADNAX, testified as follows:

1 Q. What is your name, age, residence, and occupation?

A. My name is William Q. Judge; am thirty-two years of age; reside at No. 116 Willoughby street, Brooklyn, N. Y.; am by profession a lawyer.

190 2 Q. State whether you are acquainted with Thomas G. Hall; and, if so, state how long you have known him.

A. I made Mr. Hall's acquaintance in the early part of the year 1878, in this city, at the introduction of his brother-in-law, Augustus Gustam; met him in the early part of said year—in either of the first two months.

3 Q. Please examine the paper now shown you, marked Complainant's Exhibit No. 4, and state, if you know, what it is.

A. It is a printed specification and drawing of patent No. 209,677, dated November 5, 1878, granted to Thomas G. Hall for an improvement in cutting nippers.

4 Q. State, if you please, whether you have ever seen any nippers like that described and illustrated by that patent; and, if yea, please state when and where you saw them.

A. I have seen nippers like those shown and illustrated; first, in the model manufactured for filing with the application for this patent, and afterwards when some were manufactured by the Interchangeable Tool Company.

5 Q. State, if you please, who showed you the model nipper referred to in your last answer.

A. It was shown me by Mr. Thomas G. Hall, in company with his brother-in-law, A. Gustam.

6 Q. Whose invention did Mr. Hall say this invention was?

Objected to as incompetent.

A. He said it was his own invention.

7 Q. You have stated that you saw some of these nippers manufactured afterwards by the Interchangeable Tool Company. State, if you please, when that company was organized and where it had its place of business.

191 Objected to, as the incorporation of a corporation is best proved by its certificate which does incorporate it.

A. It was organized in August, 1878. Its office at first was in my office, 71 Broadway, New York, and afterwards was removed to Hudson street, New York; its first factory, which was very small, was in Brooklyn, N. Y., for a very short time, when it was removed to Harlem, N. Y., in 129th street, near Second avenue; and in the beginning of the year 1879 the company opened a factory at 57 Hudson street—I believe that is the number; it was in the American Express Company's building.

8 Q. State, if you know, what time of the year the factory was opened in the American Express Company's building.

A. The place was taken in January; the equipment of the factory was finished in about two months.

Objected to as irresponsive.

9 Q. When you say that the factory was taken in January do you mean that the shop was rented in January?

A. I mean it was rented and entered by the company who took possession of it then.

10 Q. Did the company move its tools there from its shop in Harlem?

A. Yes.

11 Q. Was that in January, 1879?

A. Yes.

12 Q. State, if you know, how many nippers the company manufactured like Complainant's Exhibit No. 4, and state, if you know, where such nippers were manufactured.

A. The company manufactured but few like those shown in Exhibit No. 4; the exact number I do not know. I know they manufactured two dozen. In my answer I am referring to nippers ex-

actly the same in every particular as those shown in Exhibit
192 No. 4; they were made at the shop in Harlem in the latter part of 1878.

13. Q. State, if you recollect, of one J. H. Jencks & Co. manufacturing a model nipper for the Interchangeable Tool Company.

A. I recollect such fact.

14 Q. State, if you recollect, when Jencks & Co. manufactured that model nipper for the Interchangeable Tool Company.

A. As near as I can recollect, in the early part of 1879 or the last month of 1878.

15 Q. State, if you know, how that model differed, if at all, from the nipper described and illustrated in Complainant's Exhibit No. 4.

A. As I recollect it, it had a projection on the jaw which held in the spring.

As this is not the best testimony, complainant's counsel calls for the production of the model. Question and answer last objected to, as the model is the best testimony and not produced.

16 Q. State, if you know, where that model is and whether you can produce it.

A. I do not know where it is now. It was lost while in the control and in the hands of Moses C. Johnson, while employed by the Interchangeable Tool Company; I know that because I was in the factory almost every day and was actively in the management of the company's business and fully acquainted with all that transpired. I cannot produce it.

17 Q. Please to examine the paper now shown you, marked Complainant's Exhibit No. 2, and state, if you please, what it is.

A. It is patent No. 232,975 to M. C. Johnson, October 5, 1880, by the United States ("no model filed") for cutting pliers.

18 Q. I direct your attention now to the location of the
193 spring and the projections over the top of the spring shown in the drawing making part of that patent. State, if you recollect, after examining that drawing, how the spring was put into the model nipper made by Jencks & Co. for the Interchangeable Tool Company.

A. It was put in in that model in the same way as shown in Fig. 2 of the drawing attached to this patent, Complainant's Exhibit 2.

19 Q. And did it have the projections over the upper end of the spring, as shown by that patent?

A. Yes.

20 Q. State, if you know, under whose directions that model nipper was made for the Interchangeable — Company by J. H. Jencks & Co.

A. It was made under the direction and from sketches furnished by Thomas G. Hall, one of the defendants herein, and during the time the company's office was in my office.

21 Q. Please to give the name of the workman in the employ of J. H. Jencks & Co. who made that model nipper for the Interchangeable Tool Company.

A. Moses C. Johnson. He called at the office several times dur-

ing the course of the work, bringing the model as it progressed and receiving suggestions and instructions from Mr. Hall.

22 Q. What, if any, interest have you in this suit?

A. I have no interest whatever, direct or indirect.

23 Q. State, if you know, whether or not after the model nipper was completed by J. H. Jencks & Co. and delivered to the Interchangeable Tool Company any alterations were made in the principle and construction of the nipper.

A. It was altered. It was found that the jaws moved towards each other without uniformity, thus causing the cutting edges to be broken, and, at Mr. Hall's suggestion and direction, the handles of the nipper were altered so as to provide a gearing which should cause the jaws to move towards each other at a uniform rate.

194 At first a pin was put in one handle opposite the fulcrum, with a corresponding hole in the opposite handle. Mr. Hall discarded this and told me that he had tried almost a year previously putting pins in each handle, interlocking and moving the handles together, and that he would have made in the factory in Hudson street a similar device, and at his request I made a sketch of his idea, which sketch I showed to J. M. Adams, the foreman of the shop. He said——

Counsel for complainant objects to statements of hearsay; must produce Mr. Adams.

A large-sized nipper was taken then and pins were put in the handles—placed opposite the fulcrum—two pins in one handle and three in the other. Immediately afterwards that was altered by leaving but one pin in one handle and two in the other, the single pin moving between the two others. This form was adopted, with the exception that instead of pins projections or tooth and recess——

Mr. Barnard objects to Mr. Broadnax's suggestion of "tooth and recess." Witness has changed his expression at Mr. Broadnax's suggestion.

The witness protests that he did not change his expression at the suggestion of any counsel.

The form adopted was exactly the same as shown in Fig. 2 of Complainant's Exhibit No. 2, and the time of the adoption was between January and April, 1879.

24 Q. In your last answer you have referred to a gearing between the two handles of the nipper made of pins. Please examine the handles now shown you and state, if you please, how the pin gearing, referred to in your answer, between the handles differed, if at all, from the pins in the handles now shown you.

Objected to as irrelevant and incompetent.

195 A. There was no difference, except in size, because the one to which I have testified was the largest nipper they made—about three sizes larger than these.

Handles referred to offered in evidence and marked Defendants' Exhibit Hall's Pin Gearing, J. E. B., Sp. Ex'r, 23 Feb'y, 1884.

25 Q. Please to produce, if you can, the large-sized handles referred to by you in your last answer.

A. I cannot produce them, as they are on file in Washington in the interference matter under the Johnson patent.

26 Q. State, if you recollect, when it was that Mr. Hall had the pin gearing put in the large handles referred to in your last answer.

A. In the spring of 1879; the exact date I don't remember.

27 Q. Was this pin gearing the first practical step taken by the Interchangeable Tool Company towards putting a gearing between the handles substantially like that shown in the Johnson patent?

Objected to, for it is not shown that the Interchangeable Tool Company took any step.

A. The pin and hole was the first step to which I referred; this I would call the second.

28 Q. When you say the pin and hole do you refer to a gearing or connection between the handles like the exhibit now shown you?

A. Yes, sir; I do.

Exhibit offered in evidence and marked Defendants' Exhibit Hall's Pin-and-Hole Gearing, J. E. B., Sp. Ex'r, 23 Feb'y, 1884.

29 Q. State, if you please, when Mr. Hall first showed you a plan of gearing consisting of a pin in one handle and a hole in
196 the other, like this Exhibit Hall's Pin-and-Hole Gearing.

A. In the early part of 1879, at my office; I made a sketch then for him and he made one also on the same paper showing the pin-and-hole gearing, and also the tooth or ratchet gearing or tooth-and-recess gearing; I want to cover that pin gearing. That sketch I produced on the Johnson interference case; it was filed as an exhibit and I have not seen it since.

30 Q. How early in the year 1879 did Mr. Hall show you the pin-and-hole gearing?

A. As early as March, 1879; he showed me both at that interview.

31 Q. When you say "both" do you mean the pin-and-hole gearing like Defendants' Exhibit Pin-and-Hole Gearing, and also like Defendants' Exhibit Hall's Pin Gearing?

A. I do.

32 Q. What was done with these sketches at the time they were made? Who were they given to and what use was made of them?

Objected to.

A. The sketches to which I refer were retained by me; several duplicates of them were made by me; were taken to the factory in Hudson street by Mr. Hall and me and were there shown to the foreman, S. M. Adams, and, at his request, other sketches were made by me roughly to show Mr. Hall's idea, and those latter copies and sketches were kept in the factory.

33 Q. State, if you know, whether Mr. Adams was directed by Mr. Hall to put the pin gearing in the handles of the nippers for the

purpose of ascertaining how the nipper would operate with a gearing between the handles.

A. He was directed to do this by Mr. Hall in my presence, and Adams showed me the pins in process of being put in, and the handles—discussed the idea with me—and in a couple of days
197 showed me and I held in my hand the large nippers with the pins in the handles, to which I have testified, and said he guessed it would work all right. I remember this distinctly, and that owing to an irregularity in the pins one handle flared out much more than the other, and when produced in the interference case I identified it positively and it had the same peculiarity. Mr. James M. Adams afterwards made a claim to this invention at about the same — Moses C. Johnson procured his patent.

34 Q. State, if you please, when Mr. Hall gave directions to Mr. Adams to put the pin gearing in the handles, as you have testified in your last answer.

A. As near as I can recollect, it was as early as February or March, 1879; that's the best I can do.

35 Q. State, if you please, whether or not at the time these directions were given by Mr. Hall to Mr. Adams Mr. Moses C. Johnson was in the employ of the Interchangeable Tool Company.

A. He was, as a tool-maker, under Adams' superintendence.

36 Q. How long after the pin gearing was put in the handles, as you have testified, was it before the plan of gearing was adopted shown in Mr. Johnson's patent (Complainant's Exhibit No. 2)?

A. It was adopted almost immediately afterwards and a model casting of the same was made for the company in Hartford, which casting I examined in the company's factory in Hudson street, when it was sent for approval by the Colt's Arms Company.

Direct examination closed.

Cross-examination of witness by Mr. BARNARD:

37 X Q. Mr. Judge, do you know anything about the alteration of model nipper made by J. H. Jencks & Co. for the Interchangeable Tool Company?

A. I do not.

38 X Q. How long have you been the counsel for the Interchangeable Tool Company? Were you ever counsel?
198 A. I was counsel for the company from its organization till September, 1881. I organized it.

39 X Q. Are you a stockholder of the company?

A. There are twenty-six shares of stock standing in my name, but I do not control them or have possession; I have long since parted with my interest.

40 X Q. Have you any pecuniary claims upon the company?

A. None whatever.

41 X Q. Have you any pecuniary interest with any of the defendants herein or any claim against them?

A. I have—neither direct or indirect.

42 X Q. Had you at any time any other connection with the Interchangeable Tool Company than that of counsel?

A. I was director and treasurer—I forget the dates—to fill a vacancy (I don't remember whose). I was a director, and was treasurer for about three weeks in 1880.

43 X Q. Have you been examined under oath relative to the respective claims for the invention described in Complainant's Exhibit No. 2?

A. I have been examined under oath in the interference Johnson *vs.* Hall, on the 5th of September, 1881, before William H. Broadnax, notary public; my testimony is contained in the printed record of testimony on behalf of Thomas G. Hall, taken in that matter, and is found on pp. 42 to 54, inclusive.

44 X Q. What you swore to and is printed on those pages as your testimony you now swear is true, do you?

Objected to as incompetent cross-examination. (Made February 25, 1884.)

A. I do.

Cross-examination adjourned until Monday, February 25th, 1884, at 12 o'clock m.

199 NEW YORK, *February 25th*, 1884—12 o'clock m.

Cross-examination of Mr. JUDGE continued:

45 X Q. Have you talked with any one about your testimony in the interference or in this suit; and, if yea, with whom, where, and when?

A. I have spoken to Mr. Thomas G. Hall, but no one else. Mr. Amos Broadnax asked me before the last meeting to look over the printed testimony in the interference case; that's all; with Mr. Hall, on the day of the last meeting, in a very cursory manner, and not for five minutes. Mr. Broadnax's talk was in his office. I remember now Mr. Broadnax informing me that this was not the interference case, but a suit for damages. That is all the talk I have had with anybody.

46 X Q. Did you read your testimony in the interference case before your examination here and know its contents?

A. I did, but cannot remember fully its contents.

47 X Q. Look at Defendants' Exhibit Hall's Pin-and-Hole Gearing and tell me when you first saw that, and where.

A. At the last meeting I saw it for the first time. I never heard of this exhibit before then.

48 X Q. Look at this same exhibit and say whether the pin-and-hole gearing are the same which you stated Hall invented and tried in 1877 and 1878.

Question objected to on the ground that it misstates the statements of witness.

A. It is the same which I stated Hall invented and tried, but it was not in 1877 and 1878, and I deny that I said so.

49 X Q. When was it that Hall invented and tried this pin-and-hole gearing?

200 Question objected to on the ground that witness could not know when Hall invented it.

A. He tried it in January, 1879.

50 X Q. How do you know Hall invented it?

A. First, because he told me so; second, because he drew me a sketch of it on a piece of paper; third, because he made, or had made, a model of it and showed it to me about January, 1879; said it was his invention; fourth, it was notorious in the factory amongst all the employees, including Moses C. Johnson and J. M. Adams, that it was Hall's invention. I don't know any other reason—I mean grounds for my belief.

Objected to as hearsay.

51 X Q. What became of the sketch you mentioned?

A. That sketch is filed in the Patent Office, as I understand; I produced it and filed it as an exhibit in the interference case.

52 X Q. Who made the model you refer to in your answer to X Q. 50?

A. I do not know.

53 X Q. Who prepared the papers for Hall's application for the patent of November 5, 1878 (Complainant's Exhibit No. 4), No. 209,677?

A. Of my own knowledge, I do not know.

54 X Q. By whose direction was the stamp, Hall's Patent No. 2, November 5, 1878, put on the nippers, Complainant's Exhibit 3d, admitted to be the nippers manufactured and sold by the Interchangeable Tool Company?

Question objected to on the ground that the witness does not know that the nipper is so admitted in evidence, and upon the further ground that the question is impertinent and wholly immaterial.

A. I know nothing about the nipper, the stamp, or the admission.

201 55 X Q. Have you not stated that in 1877 and 1878 Mr. Hall invented the regulation of the movement of the handles by teeth or pins?

A. No.

56 X Q. When did you first see a pair of nippers made with pin-and-hole gearing to regulate the movement of the handles?

A. I think in the latter part of January, 1879.

57 X Q. Can't you give the date any nearer or more positively?

A. No.

58 X Q. Who made them?

A. I don't know; I saw them in the factory.

59 X Q. When was the pin-and-hole gearing adopted by the company?

Objected to, as the witness hasn't sworn that it was adopted.

A. Never, to my knowledge.

60 X Q. Have you ever seen any nippers with the pin-and-hole gearing shown on Defendants' Exhibit Hall's Pin-and-Hole Gearing?

A. I have, but as experiments only.

61 X Q. In what did those experiments differ from Defendants' Exhibit Hall's Pin-and-Hole Gearing?

A. So far as the pin and hole is concerned, in no respect; there may be other differences for which I have not looked. There is but one plate in this exhibit—all the nippers I have seen had two. I don't think it is fair for you to drag me into a critical discussion of this exhibit, which was testified to by me only as an illustration of the pin-and-hole gearing.

63 X Q. Will you state why it is not fair to drag you in?

Objected to, because the witness is not offered as an expert. The suggestion of defendants' counsel objected to as leading witness.

202 A. I refuse to state, as my reasons might lead to a breach of courtesy; also because it would lead to an argument of the case on my part, and I am not the counsel.

63 X Q. Look at Defendants' Exhibit Hall's Pin Gearing and tell me whether the pins or projections thereon shown are the same in shape, mode of insertion, metal, and manner of moving with those in the pin gearing referred to by you as adopted by the company in February, 1879.

Question objected to on the ground that the witness did not swear that the company had adopted the pin gearing.

A. As to shape and metal, I do not know; as to mode of motion and manner of insertion, they are the same as those in the large nipper filed in the interference case, and to which I have testified at the last examination in this case.

64 X Q. Would not the shape of these teeth make some difference in their mode of motion?

Objected to on the ground that the witness is not a mechanic, nor is he offered as an expert.

A. I presume it might.

65 X Q. Who made that large nipper?

A. The Colt's Arms Company made the jaws and the handles, I think.

66 X Q. Don't you know?

A. No, sir; I was not present when they were forged.

67 X Q. Did that nipper have teeth; if so, how many, of what metal, and how inserted, and by whom and when?

A. The nipper to which I refer was an experiment, made subsequent to the sketches that I made of it in the Hudson-street factory, when Adams was foreman, the parts of an old large nipper
203 being taken for the purpose, in the handles of which, opposite the fulcra, were inserted, in one handle two pins, in the other, three; subsequently, one pin was cut off of each handle, leaving two

in one and one in the other. I saw all this in the course of its construction. I don't remember of what metal the teeth were. The pins were inserted in holes of the same size as the pins; it was done by several employees of the company.

The examiner explains: At this point of the examination Mr. Barnard instructed the examiner to add the words "and when" to the 67 X question. Whereupon Mr. Broadnax objects, as the witness has already stated.

68 X Q. When was this done?

Objected to, as the witness has already answered.

A. As my recollection serves me, it was in February or March, 1879.

69 X Q. Is that the nearest you can come to the date?

A. Yes.

70 X Q. What were the names of the employees whom you say you saw doing this?

A. J. M. Adams, foreman; Thomas G. Hall, president and superintendent; Moses C. Johnson, tool-maker; filers and boys, names unknown.

71 X Q. What part of this work did J. M. Adams — that you saw?

A. Filing, adjusting plates, inserting screws, and other work that I don't remember; Johnson the same; the filers and boys worked on the jaws and plates. Mr. Hall superintended the whole operation. I saw Mr. Hall working with his hands, I don't remember exactly what at.

72 X Q. How many times were you at this factory in Hud-
204 son street during the preparation of this large nipper "model?"

A. Every day, for a couple hours each day, during the making of it—say, three days in all. That makes three times, I suppose.

73 X Q. Did you see J. M. Adams and Moses C. Johnson at each of these times there?

A. I think I did.

74 X Q. Look at Defendants' Exhibit Hall's Pin Gearing and tell me where the pins were situated in this large nippers in comparison with those on the exhibit?

A. In the same place.

75 X Q. Where were those which were cut off?

A. Immediately besides those which were left. I don't know whether the first or last were the ones cut off. I don't remember now whether they were the same shape with those on the exhibit.

76 X Q. Who ordered the castings from the Colt's Arms Company?

A. I don't know.

77 X Q. Who designed the form of these castings?

A. I don't know.

78 X Q. Who designed the milling tools used by the Interchangeable Tool Company at this time?

A. I do not know.

79 X Q. Where was the model made from which the nipper shown in the drawing annexed to Complainant's Exhibit 2nd (letters patent) was made?

A. I don't know.

80 X Q. Don't you know that Moses C. Johnson claimed to be the inventor of the improvements shown in Complainant's Exhibit 2nd?

A. I never heard of his claim until 1880.

81 X Q. How many times do you say Moses C. Johnson brought his unfinished model down to your office?

A. I say twice.

82 X Q. In what month and year?

205 A. I am not positive. I cannot state more positively than between August, 1878, and December, 1878, or the beginning of 1879.

83 X Q. Is that the most definite answer you can give?

A. It is.

84 X Q. Did the model made by Jencks & Co. have any teeth in the handles?

A. No.

85 X Q. Did it have any guide to regulate the motion of the handles?

A. No.

86 X Q. When was it made?

A. I don't remember.

87 X Q. What form of nipper has the Interchangeable Tool Company made and sold?

A. They have made and sold a nipper of the form and mode of construction shown in the drawing in Complainant's Exhibit 2d; how many I know not.

88 X Q. Are you a skilled mechanic or draughtsman?

A. I am a skilled draughtsman, but I am not a mechanic in any sense.

89 X Q. Have you any evidences of your skill in draughting?

A. I have not at this moment.

Witness, upon interrogatory of examiner, states that he expects to go to London, England, on the steamship Cephelonia, which is advertised to sail Wednesday, the 27th instant, and that he expects to return in two months.

90 X Q. How long and how have you been connected with the Interchangeable Tool Company, and when did that connection cease?

206 A. I was elected a director after the company's organization, and was a director when it failed, in 1880, and was its treasurer for a few weeks in 1880; they were making these nippers when they failed.

Cross-examination closed.

WILLIAM Q. JUDGE.

Sworn to and subscribed before me—

J. EDGAR BULL,
Notary Public, N. Y. Co., N. Y., and Special Examiner.

Examination of witnesses adjourned until Thursday, the 28th instant, at 12 m.

FEBRUARY 28TH, 1884—12 m.

Parties met pursuant to adjournment, and adjourned, by consent, until Wednesday, March 5, 1884, at 1 p. m.

NEW YORK, *March* 5, 1884—1 p. m.

Parties met pursuant to adjournment, and adjourn, by consent, until 11 a. m., Friday, the 7th inst.

It is hereby stipulated and agreed between counsel for the respective parties that defendants have until the first day of April, 1884, to put in *his* testimony and proofs in *his* cause.

March 7, 1884.

AMOS BROADNAX,
Defendants' Solicitor.
HORACE BARNARD,
Complainant's Solicitor.

207 *Thomas G. Hall's Direct.*

NEW YORK, *March* 7, 1884—11 a. m.

Parties met pursuant to adjournment.

Present: Same counsel.

THOMAS G. HALL, one of the defendants herein, being called and duly sworn, and upon interrogatories propounded by Mr. BROADNAX, testified as follows:

1 Q. What is your name, age, residence, and occupation?

A. Thomas G. Hall; am fifty-one years of age; reside at 202 South Third street, Brooklyn, New York; am president of the Interchangeable Tool Company.

2 Q. How long have you been president of the Interchangeable Tool Company?

A. Ever since August, 1878.

3 Q. When was the Interchangeable Tool Company organized? State as near as you can recollect.

A. About August, 1878. I have been president ever since it was organized.

4 Q. What is the business of the Interchangeable Tool Company?

A. The manufacturing of nippers and other fine machine and tool work.

5 Q. Are you one of the defendants to this suit?

A. I am.

6 Q. What kind of nippers do the Interchangeable Tool Company manufacture?

A. They manufacture nippers upon the compound-lever principle; four sizes, known, respectively, as Nos. 1, 2, 4, and 6.

7 Q. Please to produce a specimen nipper of each of the sizes referred to by you in your last answer.

Objected to on the ground that, so far, this appears irrelevant and immaterial as to what they now do.

208 A. I now produce nipper No. 1, marked Defendants' Exhibit Hall's No. 1 Nipper, and I produce No. 2 nipper, marked Defendants' Exhibit Hall's No. 2 Nipper, and I now produce No. 6 nipper, marked Defendants' Exhibit Hall's No. 6 Nipper. These are all I have at present with me.

Nippers referred to and produced offered in evidence and marked as aforesaid.

Objected to as irrelevant, immaterial, and incompetent.

8 Q. Please to examine Complainant's Exhibit No. 3 and state, if you please, how it differs, if at all, from Defendants' Exhibit Hall's No. 2 Nipper.

Objected to because the comparison of the two exhibits will show it better.

A. The only difference that I see is in the length of the projection over the spring. The projections in Complainant's Exhibit 3 are somewhat larger than the projections in the Defendants' Exhibit Hall's No. 2 Nipper.

The attention of the magistrate is called to the fact that both these exhibits are closed and only can be examined from the outside.

9 Q. Please to state how much longer the projections are in Complainant's Exhibit 3d than they are in Defendants' Exhibit Hall's No. 2 Nipper.

A. Judging by eyesight, I should say about one sixty-fourth of an inch longer.

10 Q. Substantially, then, as I understand you, the two exhibits are alike?

A. With the exception above mentioned.

11 Q. State, if you please, whether the Interchangeable Tool Company has manufactured nippers like Complainant's Exhibit 3d.

A. To the best of my knowledge and belief, they have.

209 12 Q. State, if you please, when the Interchangeable Tool Company commenced to manufacture such nippers.

A. About the first of July, 1879.

13 Q. State, if you please, how long the company continued to manufacture such nippers having the same length of lip over the head of the spring as that of Complainant's Exhibit 3.

A. To the best of my knowledge and belief, up to December, 1879.

14 Q. State what, if any, change was made in the length of the lip over the end of the spring at the time in December you mentioned in your last answer.

A. The projections, since January, 1880, have been shortened.

15 Q. To what extent have the projections been shortened?

A. Between one thirty-second and one sixty-fourth of an inch.

16 Q. With the exception you have mentioned, has the company continued to manufacture such nippers like Complainant's Exhibit 3d down to the present time?

A. They have; this is the No. 2 nipper.

17 Q. State, if you know, how many of such nippers the company manufactured previous to October 1st, 1880, referring now to the No. 2 nipper.

A. I can only speak from memory. I think it would average about six dozen per working day, from July 1, 1879, to December 15, 1879.

18 Q. Why do you limit your answer to the 15th of December, 1879?

Objected to as being cross-examination.

A. For the reason that some time between the first of December, 1879, and the first of January, 1880, the company completed a set of milling-machine fixtures which have been used exclusively since that time in milling the No. 2 jaws, which would mill the
210 projection over the head of the spring shorter than that shown in Complainant's Exhibit 3d.

19 Q. And ever since that, as I understand you, the projection or lip over the head of the spring in the No. 2 nipper has been made from one thirty-second to one sixty-fourth part of an inch shorter, as you have explained?

A. It has.

20 Q. Please to examine the paper now shown you, marked Complainant's Exhibit 4th, and state, if you please, what it is.

Objected to because the paper speaks for itself and is in evidence.

A. It is a copy of specification and drawing of a patent granted to me November 5th, 1878, No. 209,677, for an improvement in cutting nippers.

21 Q. State, if you please, who is the inventor of the nipper described in the patent referred to in your last answer.

A. I am.

22 Q. State, if you please, whether the Interchangeable Tool Company manufactured any nippers like that shown in Complainant's Exhibit 4th; and, if so, please to state when and how many, as near as you can recollect.

A. I think they manufactured in all from six to twelve dozen—all prior to February, 1879.

23 Q. State, if you please, why the company did not continue the manufacture of the nipper as it appears in Complainant's Exhibit 4th.

A. Because the nipper did not work satisfactorily.

24 Q. In what particular was the nipper defective?

A. The defect consisted in the want of uniformity in the movement of the jaws.

25 Q. What, if anything, was done to cure that defect?

211 A. The first practical thing done at the factory of the Tool Company, situated at 57 Hudson street, N. Y., consisted of the insertion of three pins in one handle and two pins in another handle of a nipper previously made by myself, forming a sort of gearing and connecting the two handles. These pins were inserted opposite the fulcra.

26 Q. Previous to the insertion of the pins, as stated in your last answer, what, if anything, was done towards making a model nipper for the company?

A. On behalf of the company I visited Messrs. J. H. Jencks & Co., at the corner of Centre and Hester streets, N. Y., and entered into an arrangement to have a model nipper made, which nipper was completed, as near as I can recollect, about the first part of January, 1879.

Objected to as stating conclusion of law.

27 Q. Under whose direction was that model nipper made?

Objected to.

A. Under my direction.

28 Q. State, if you please, who furnished the forgings—I mean the several parts of which that nipper was made.

A. I did.

29 Q. State, if you please, how that model differed from the nipper, as it appears in Complainant's Exhibit No. 4.

Objected to, and that model called for is the best evidence.

Defendants' counsel notices the presence of Mr. J. M. Adams at this examination, a witness who testified on behalf of Johnson in the interference suit, and whose testimony makes a part of one of complainant's exhibits in this suit, and gives complainant's coun-

212 sel notice that he objects to the presence of the said Adams, if he is to be sworn and testify in this case, and that upon the hearing, in the event of his testimony being taken, he will move to strike it out.

A. The difference consisted in the shape of the side plate; a second difference consisted in the absence in the Jencks model of the pin marked *q* in the drawing of Complainant's Exhibit 4th; a third difference consisted in the absence of a pin marked *h*, which held the spring in position; a fourth difference was that the Jencks model had projecting lips over the head of the spring holding the spring in position.

30 Q. State, if you please, how the spring in the Jencks model nipper and its arrangement between the jaws of the nipper differed from the spring and its arrangement between the jaws in Complainant's Exhibit 3d, and Defendants' Exhibit Hall's No. 2 Nipper.

Same objection.

A. The difference consisted solely in that the projections over the head of the spring were shorter than in either of these exhibits.

31 Q. How much shorter was the projection?

Same objection.

A. I should say one thirty-second of an inch on each side jaw.

32 Q. In all other respects then, as I understand you, the construction of the spring, its arrangement between the jaws of the nipper, and the projections over the head of the spring was the same as in the exhibits referred to in your answer to the 30th question?

Objected as to leading.

A. It was the same.

33 Q. What size of nipper was the Jencks model?

Objected to.

213 A. No. 2

34 Q. Please to produce that model, if you can.

A. I cannot do so.

35 Q. Why?

A. I do not know where it is and have no means of finding out.

36 Q. Have you searched for it?

A. I have, diligently.

37 Q. State, as near as you can recollect, when and where you last saw that Jencks model.

A. The last I saw of it was about the first of January, 1880; I saw it at 57 Hudson street.

38 Q. Please to give the name of the workman who made that Jencks model nipper.

A. Moses Carlisle Johnson made the model under my direction.

39 Q. What, if any, alterations were afterwards made to that nipper—I mean the Jencks model nipper?

A. Pieces of metal were brazed on the inside of the handles opposite the fulcra for the purpose of giving sufficient metal for making a gear connection between the handles.

40 Q. What kind of a gear connection do you refer to?

A. It was a prong and notch.

41 Q. How did it differ, if at all, from the prong-and-notch gearing between the handles in Complainant's Exhibit 3d?

A. There was no difference; it was the same.

42 Q. Are you acquainted with Moses C. Johnson; and, if so, when and where did you make his acquaintance?

A. I am acquainted with him; I first saw and became acquainted with him about November—latter part, I think—1878, at the establishment of J. H. Jencks & Co.

43 Q. When, if ever, did Mr. Moses C. Johnson go into the employ of the Interchangeable Tool Company?

A. About the first part of May, 1879.

214 44 Q. Please to give the name of the workmen who brazed the pieces of metal in the inside of the handles of the Jencks model nippers and made the gearing between the handles.

Objected to; same objection.

A. To the best of my knowledge and belief, seeing him working on it; it was Moses C. Johnson.

45 Q. Referring now to the spring between the jaws of the Jencks model nipper, whose invention was it, the placing of the spring between the jaws in the seat and with the projections over the upper ends of the spring, as you have described?

Objected to as leading and a conclusion of law.

A. Mine.

46 Q. Referring now to the gearing between the handles of the nipper, whose invention was it, the putting of the gearing between the handles, as you have described?

Objected to as argumentative and a conclusion of law.

A. Essentially mine.

47 Q. State, if you please, when you first conceived the idea of connecting the two nipper handles by means of a gearing.

Objected to.

A. I first conceived the idea during the latter part of 1876. I tested it on the first day of January, 1877, at my residence in College avenue, near 142d street, New York city.

48 Q. What kind of a test did you make of the idea on the
215 first of January, 1877—I mean in what kind of tangible form did you put the idea?

A. I had a nipper in my possession made entirely of brass. It was a roughly made nipper. I noticed that in closing the handles one jaw would overlap the other. To obviate that I took one of the handles, drilled a hole in opposite the fulcrum and inserted a piece of wire. I then took the other handle and drilled a hole as nearly opposite as I could with the means at my command. These handles, when they were put together in the nipper, acted in unison; but, not being put in exactly in the proper position, one handle flared outwardly more than the other.

49 Q. How did that arrangement of gearing described in your last answer differ, if at all, from Defendants' Exhibit Hall's Pin-and-Hole Gearing?

Objected to.

A. The only difference is the pin and hole in this exhibit (Hall's pin-and-hole gearing) is made with accuracy, thus obviating the flaring of one of the handles mentioned in a previous answer.

50 Q. State to whom, if any one, you showed that invention in 1877.

A. I showed it to Mr. Crane—I think his name is Robert W. Crane. My impression is that I also showed it to Mr. William Q. Judge about the same time.

51 Q. Do you mean that you showed that invention to the persons mentioned in your last answer in the year 1877, or do you mean that you subsequently showed it to them—the invention made in 1877?

Objected to as leading and coupled with suggestions of counsel.

A. I mean to say that I showed the invention made in 1877 in the fall of 1878; the date mentioned in the previous answer, 1877, was a mistake; I was not acquainted with Mr. Crane in 1877. The Mr. Judge I referred to is William Q. Judge, who has testified in this case.

Adjourned until Saturday, March 8, 1884, at 11 a. m., at same place.

216 NEW YORK, *March* 8, 1884.

Parties met pursuant to adjournment.
Present: Same counsel, same witness.

52 Q. State, as near as you recollect, when you made the acquaintance of Mr. William Q. Judge.
A. It was in the months of April or May, 1878.
53 Q. You say, in answer to a previous question, that you have an impression that at the time you showed this pin-and-hole gearing invention to Mr. Crane that Mr. William Q. Judge was present. State if you recollect of subsequently showing the same invention to Mr. Judge.

Objected to as asserting an invention and an impression and being leading.

A. I do.
54 Q. Please to state when and please to relate what occurred at the time you showed the invention to Mr. Judge, referred to in your last answer.

Same objection.

A. In March, 1879, I was in Mr. Judge's office, No. 71 Broadway. Mr. J. F. Oliver was present at the time. A conversation occurred between us in reference to an interview between a Mr. Curtis, Mr. Judge, and myself. This matter related to a method of interlocking the handles of our nipper. At the time Mr. Judge made a sketch of this interlocking arrangement it was understood between Mr. Oliver, Mr. Judge, and myself that the plan should be tried at the factory in Hudson street.

All parts of the above answer are objected to which appear therein to be argumentative, supposititious, and conclusions of witness.

217 55 Q. In your last answer you refer to a sketch made by Mr. Judge of a plan of interlocking the handles. Please to state what that plan of interlocking the handles was.
A. It was the insertion of two pins in one handle and one pin in the other opposite the fulcra.
56 Q. Upon whose suggestion or request did Mr. Judge make that sketch?
A. At my request.
57 Q. Please to examine Defendants' Exhibit Hall's Pin Gearing

and state, if you please, how the sketch made by Mr. Judge differed from the interlocking connection between the handles shown by that exhibit, if at all.

Objected to because the sketch is not produced and the date of the manufacture of the exhibit has not yet been shown, nor by whom it was made.

A. There was no difference.

58 Q. Please produce, if you can, the sketch referred to by you as having been made by Mr. Judge.

A. I cannot do so.

59 Q. Why?

A. Because I believe it is on file in the United States Patent Office.

60 Q. Do you mean as part of the record in the interference case?

A. I do.

61 Q. In answer to Q. 25 you say: "The first practical thing done at the factory of the Tool Company, situated at 57 Hudson street, N. Y., consisted of the insertion of three pins in one handle and two pins in another handle of a nipper previously made by myself, forming a sort of gearing and connecting the two handles. These pins were inserted opposite the fulcra." Please to state whether these pins were put in the handles by your direction after the sketches made for you by Mr. Judge, as you have stated.

218 Objected to for ambiguity as to the word "after."

A. They were.

62 Q. Please to state, as near as you can recollect, when these pins were first put in the handles, as you have stated.

Objected to, because the knowledge of the witness is not called for.

A. About the 22d or 23d day of April, 1879.

Objected to as not showing knowledge on part of witness.

63 Q. Did you direct them to be put in?

A. I did.

64 Q. Who did you direct to do it?

A. James M. Adams, foreman, at that time, of the shop.

65 Q. Do you recognize Mr. Adams as being present here?

A. I do.

66 Q. State, if you know, when Mr. Adams went into the employ of the Interchangeable Tool Company.

A. Fourteenth day of April, 1879.

67 Q. Did he go into the employ of the company as foreman of its tool shop?

Objected to, because if Mr. Adams went in under written contract that is the best evidence as to how he went in; the contract called for.

A. He did.

58 Q. Was Mr. Johnson in the employ of the company at the time the pins were put in the handles to form a gearing, as you have stated?

Objected to as stating a purpose.

219 A. He was.

69 Q. Was this pin gearing put in the handles before the Jencks model nipper was altered by brazing the pieces of metal on the inside of the handles and the forming of the tooth-and-notch gearing in them, as you have stated?

Objected to, because it has not been shown that such tooth-and-notch gearing was formed on the Jencks model.

A. Yes.

70 Q. Then, as I understand you, the first practical step towards connecting the two handles of your nipper with a gearing was the putting of the pins between the handles so as to make them interlock, as you have stated?

A. It was.

71 Q. That, I understand you, was by way of experiment?

A. It was.

72 Q. And then followed the alteration of the Jencks model?

Objected to as leading.

A. Yes.

73 Q. By whose direction was the Jencks model altered?

A. My direction.

74 Q. In answer to Q. 56, which is as follows:

"Upon whose suggestion and request did Mr. Judge make that sketch?"

You say:

"My request."

Please to state at whose suggestion he made the sketch.

A. My suggestion.

220 75 Q. After the Jencks model nipper was altered and the tooth-and-notch gearing put between the handles, as you have stated, what use was made of it?

Question as to Jencks' model objected to because that model was called for and not produced and its absence not satisfactorily acplained.

A. It was used as the model and standard for making the gauges and tools for manufacturing the nippers.

76 Q. After the model nipper was completed, as you have stated, what was done next towards the manufacture of the nipper?

A. The next step taken was the making of templates from that model. These templates were used for the purpose of making the milling tools and mills.

77 Q. State, if you please, how the forgings were made for these nippers.

A. In the first place, duplicate parts were made of the jaw and handle, one of each; these duplicates were made somewhat larger in every respect than the parts of the model. These duplicates were taken to the Colt's Fire Arms Company, at Hartford, for the purpose of having dies made to forge similar pieces, which they subsequently did. The forgings were made in drops, these dies serving as a matrix.

All that is hearsay in the above answer objected to.

78 Q. When you say that these forgings were made in drops, the dies serving as a matrix, do you mean that the forgings are made under a drop-hammer whose function it is to drive the metal of the forging in the dies forming the part of the nipper represented by the die?

A. I do.

79 Q. Of what metal are these forgings made?

A. Steel.

221 80 Q. How much larger are the forgings as they come from the die than is the corresponding part of the finished nipper?

A. About one one-hundredth part of an inch.

81 Q. Are these forgings annealed before they are put into the milling tools?

A. They are.

82 Q. And are all of the parts of the several sizes of nippers milled to a given gauge.

A. They are.

83 Q. And are all the holes bored in the several sizes of nippers drilled in a machine so as to be all exactly alike in each nipper of the respective sizes?

A. Invariably and necessarily so.

84 Q. Why?

A. Because if otherwise the nipper would be inoperative; the different parts would not assemble properly.

85 Q. In other words, the parts would not be interchangeable, as I understand you?

A. They would not.

86 Q. Please to give the name of the person who made the die into which the forgings of your No. 2 nipper were and are made.

A. Mr. James Kennelly.

87 Q. And did he make the first dies for that nipper after the duplicate model made from the Jencks model nipper, as you have testified?

Objected to as leading.

A. He did.

Objected to, inasmuch as it is hearsay.

88 Q. State, if you please, who took a duplicate model to Mr. Kennelly for him to make the dies after.

A. To the best of my recollection, I did.

89 Q. To sink these dies was it absolutely necessary for the die-sinker to have a model?

Objected to as argumentative, as calling for reasoning.

222 A. Yes.

90 Q. When did the Interchangeable Tool Company produce its first No. 2 nipper, like Complainant's Exhibit 3d?

A. About July 1, 1879.

91 Q. Were the first No. 2 nippers made by the company like Complainant's Exhibit 3d?

A. Substantially so.

92 Q. State, if you please, whether you have manufactured any nippers like Complainant's Exhibit 3d, or like Complainant's Exhibit 2d, upon your own account and for yourself?

Objected to as immaterial.

A. I never did.

93 Q. Referring now to Complainant's Patent Exhibit 2d, I read to you lines 33, 34, 35, 36, 37, and 38, which are as follows:

"In the patent above referred to the end of wire or other thing cut off by the cutters drops into and injures the spring that opens the jaw levers. This I obviate by providing each jaw lever with a lip to cover or bridge the space between the jaws, as the jaw levers are closed."

I also read to you, from the same patent, lines 45 to 58 and part of 59, inclusive:

"The body of the pliers is composed of two side plates, *a b*. These side plates are fixed together by the screws 2, 3, 4, 5. Of these screws *those* 2, 3 serve as the fulcra of the jaw levers *c d*, having at their ends the usual cutters or cutting surfaces c^1 d^1. Each of these jaw levers has a lip, *z*, and the end of one meets the end of the other lip just as, or just before, the two cutting edges, c^1 and d^1,

223 separate the wire or other metal end to be cut off by them, thus closing the space between the said jaw levers and side plates in which is placed the spring *f* and preventing the entrance into said space of hard pieces of wire or other articles that would clog the pliers."

State, if you please, how many nippers you have made for yourself individually and how many nippers the Interchangeable Tool Company has made in which the ends of the two lips came together, forming a bridge over the spring, as stated in the quotation from the specification I have just read.

Objected as immaterial as to the individual and also as to the company.

A. I can answer from knowledge only from the first day of January, 1880, up to the present time, that I have not individually nor as an officer of the Interchangeable Tool Company made any nippers as described, nor do I believe that any were made prior to that date.

Latter part of answer objected to as based on hearsay.

94 Q. Please to examine Complainant's Exhibit 3d and state, if you please, whether the two lips in that nipper come together as stated in the quotation I read from the patent.

Objected to as immaterial.

A. They do not.

95 Q. Please to examine Defendants' Exhibit Hall No. 2 Nipper and state, if you please, whether the ends of the lips in that nipper come together when the nipper is closed.

Objected to as immaterial.

224 A. They do not.

96 Q. In the manufacture of these nippers is it in any way material that the lip over the head of the spring be made larger than one side of the spring is thick?

Objected to as argumentative and calling for an opinion.

A. It is not.

97 Q. At the time that you had the Jencks model nipper made and the projections put over the upper end of the spring, as you have testified, were the projections over the end of the spring in that nipper long enough to serve every practical purpose in the manufacture of the nippers?

Objected to because witness has not testified that he caused those projections to be put over the end of the spring in the Jencks model, and also as leading.

A. Yes.

98 Q. State, if you please, who directed the projections to be put over the upper end of the spring in the Jencks model.

Objected to as calling for a conclusion.

A. I directed Moses C. Johnson to do so.

Adjourned until Tuesday, March 11, 1884, at 11 a. m.

N. Y., *March* 11, 1884—11 a. m.

Parties meet pursuant to adjournment.
Present: Same counsel, same witness.

99 Q. Who employed Mr. Johnson to work for the Interchangeable Tool Company?

225 A. He was engaged, I think, by Mr. Adams. Mr. Adams had suggested to me that Mr. Johnson was a competent draughtsman and tool-maker, and I told Mr. Adams to engage him.

100 Q. What was Mr. Johnson's reputation as a skilled workman when he went in the employ of the Interchangeable Tool Company?

Objected to as calling for hearsay.

A. Reputation was good.

101 Q. During the time that Mr. Johnson was in the employ of the Interchangeable Tool Company did you ever hear him make

any claim to the invention described and illustrated in his patent, Complainant's Exhibit 2d?

Objected to as immaterial.

A. Never.

102 Q. Did you ever hear, during the time mentioned in my last question, from any one, that Mr. Johnson made any claim to the invention described and illustrated in his patent referred to in my last question?

Same objection.

A. Never. No would be a proper answer.

103 Q. State, if you please, when you first heard that Mr. Johnson made any claim to any invention or any improvement upon your nipper.

A. About October, 1880.

104 Q. From whom did you first hear it?

A. Henry G. Thompson, the complainant here.

105 Q. After you had the pins put in the inside of the nipper handles, for the purpose of interlocking them by way of experiment, did you then have a complete and finished nipper made subsequently with a pin gearing?

226 Objected to because the question implies that defendant Hall had it done

A. If you mean an entirely new nipper my answer wouldbe no?

106 Q. What, if any, kind of nipper did you or the Interchangeable Tool Company place in the hands of Peter Frasse & Co. by way of sample or illustration of the style of your nipper?

Objected to because the sample in question is not produced and is the best evidence.

A. We had a seven-inch nipper partially made in which pins were inserted in the handles to make a gearing—I should say in which pins were after, about this time, put in. This nipper was given to Messrs. Frasse & Co. as a sample of that size nipper.

107 Q. State, as near as you can recollect, when that nipper was completed and given to Messrs. Frasse & Co.

Same objection.

A. As near as I can recollect at present, about August, 1879.

108 Q. How did that nipper, in principle and mode of operation, differ in principle and mode of operation from the nipper, Complainant's Exhibit 3d?

Objected to, as witness is not an expert.

A. There was no difference.

Same objection as above.

109 Q. Please to produce that nipper.

A. I cannot do so.

110 Q. Why?

A. I believe it is in the Patent Office as an exhibit in the interference case.

Objected to as hearsay.

227 111 Q. You have stated that after the Jencks model nipper was altered by putting the tooth-and-notch gearing between the handles the company had its templates and dies made to correspond with that model. Now, previous to the making of those dies, had the company already made a set of dies to correspond with the nipper as it appears in Hall's patent, Complainant's Exhibit 4th?

Objected to because it has not been shown that the company had templates and dies made to correspond with the Jencks model, and such templates and dies would be the best evidence, and have not been produced.

A. They had.

112 Q. And did the company have a lot of forgings made in such dies of the jaws and handles of the nipper—I mean, of course, as the nipper appears in Complainant's Exhibit 4th, without the gearing between the handles?

Objected to because no such forgings have been produced.

A. They did.

113 Q. State, as near as you can recollect, what it cost the company to have the new dies made to correspond with the Jencks model as altered.

Objected to as immaterial.

A. Several hundred dollars; five or six hundred dollars.

114 Q. How did the original dies and the forgings made in those dies differ from the new dies and the forgings made in them?

Objected to because neither have been produced and are the best evidence.

228 A. The first set of dies made the forgings wider across the cutting edge of the nipper. The first dies were shorter in the length of the shaft of the jaws than the second set of dies. The first set of dies had less metal produced in the forgings at the spot where the projecting lip is made in the forgings made from the second set of dies.

Part of the answer objected to as having been suggested by the counsel for defendants.

Defendants' counsel denies having made any suggestion at all.

115 Q. Your answer refers to the jaw of the nipper only and the jaw lever. Please state now how the new die for the handle differed from the old die for the handle.

Objected to as leading and instructing the witness.

A. The difference in the handle dies consisted only in making

them so that there would be a protuberance on the handles opposite where the hole is drilled—that is, the fulcrum—sufficiently large to allow the gearing to be milled upon the handle.

116 Q. When the new dies were made was it done by altering the old dies, or were new dies cut entirely?

Objected to for non-production of dies.

A. The old dies were annealed, planed, resunk, and rehardened after the new model parts taken to the Colt's Arms Company.

All parts of said answer which are hearsay objected to.

117 Q. Do you mean by your last answer that the block of steel in which the old die was sunk was planed off so as to remove entirely the old die before the new die was cut?

229 Same objection, and also because it is leading and plainly suggests the answer wished.

A. I do.

118 Q. Then, as I understand you, there was nothing left of the old die excepting the block of steel into which the new die was cut?

Objected to as calling for hearsay and leading.

A. That was all that was left.

119 Q. You have stated in a previous answer that when the Jencks model nipper was made you furnished Mr. Johnson the forgings out of which that nipper was made; now state, if you please, which dies those forgings were made in out of which Mr. Johnson made that model.

This part of question objected to as leading and instructing the witness; second part objected to as asserting what has not been shown to be a fact.

A. The first or original set of dies.

120 Q. In making the Jencks model what, if any, alterations did Mr. Johnson make in the forgings?

Objected to, because the Jencks model is not produced for comparison and its absence not satisfactorily accounted for.

A. He dovetailed a piece of metal onto the end of the shank of each jaw for the purpose of elongating it.

121 Q. You have stated in a previous answer that the difference between the size of the forgings as they came from the die and the corresponding part of the finished nipper is about one one-hundredth of an inch. Please to state whether or not that is true, as well of the forgings made in the old dies as of these made in the new dies.

230 Objected to for want of production of the forgings, and also as leading, and to the first part as being the construction of the answer by defendants' counsel.

A. It is; with this explanation, that by excessive use the dies are liable to enlarge a very little.

122 Q. In what capacity was Mr. Johnson employed by the Interchangeable Tool Company?

Objected to as repetition.

A. Draughtsman and tool-maker, and for a short period foreman.

123 Q. What, if anything, did Mr. Johnson do towards perfecting the nipper?

Objected to as plainly not within witness' knowledge.

A. All I ever knew him to do in the matter was to reduce the working of the gearing to a perfect shape.

124 Q. What were Mr. Johnson's habits during the time he was in the employ of the Interchangeable Tool Company as to temperance and sobriety?

Objected to as immaterial.

A. Bad in that respect.

125 Q. Why did Mr. Johnson leave the employ of the company?

Same objection.

A. I discharged him on account of his intemperate habits.

Defendants' counsel calls upon complainant's counsel to produce the exhibits making part of Complainant's Exhibit Interference Record, as he desires to use, and must have, before he can complete the examination of this witness or any of his witnesses, such
231 exhibits, and gives complainant's counsel notice that unless he produces such exhibits he will apply to the court to suspend the examination until such exhibits are produced.

Complainant's counsel thereupon states that it was well known to defendants' counsel that those exhibits were on the file in the interference in this matter in the Patent Office, at Washington; that they have been detained there in consequence of an appeal taken by defendants' counsel from the decision of the Commissioner of Patents in said interference to the Secretary of the Interior; that defendants' counsel was fully aware of these facts before he began the examination of his witnesses and before Mr. Thomas G. Hall was sworn herein and examined.

It is hereby stipulated between counsel herein that witness shall sign his deposition, he having already been sworn, as taken up to date, and that his examination shall be resumed as soon as said exhibits are produced; and he shall be produced thereafter for cross-examination, complainant's counsel stipulating to produce all of such exhibits within his power, and to give defendants' counsel five days' notice to produce Thomas G. Hall and proceed with his examination and cross-examination.

New York, March 11, 1884.

THOMAS G. HALL.

HORACE BARNARD,
Complainant's Solicitor.
AMOS BROADNAX,
Defendants' Solicitor.

Deposition subscribed and sworn to before me this 11th day of March, A. D. 1884.

J. EDGAR BULL,
Notary Public, New York County, N. Y., and Special Examiner.

232 *Notice.*

Circuit Court of the United States, Second Circuit, Eastern District of New York

HENRY G. THOMPSON *vs.* THOMAS G. HALL *et al.*

SIR: You are hereby notified of the arrival at my office of the exhibits hitherto filed in the United States Patent Office in the interference between Thomas G. Hall and Moses C. Johnson; and, further, that you are required to proceed with the examination of your witnesses for the defendants in this action, at my office, at No. 98 Broadway, New York city, on Saturday, the 29th day of March, 1884, at 11 o'clock a. m. of that day.

Yours, etc.,
HORACE BARNARD,
Complainant's Solicitor, 98 Broadway, New York.

Dated New York, March 24, 1884.

To Amos Broadnax, Esq., respondents' solicitor, 8 Pine street, New York.

233 N. Y., *March* 29, 1884—11 o'clock a. m.

Parties meet pursuant to foregoing notice.

Present: Same counsel, same witness.

Counsels for complainant and defendants agree that the box was received from the Patent Office purporting to contain the exhibits in the interference between Thomas G. Hall and Moses C. Johnson; that said box was opened in the presence of counsel for respective parties, and was found to contain the following exhibits used in said interfence, and none others, viz:

Hall's Exhibit No. 1 (drawing).
" " No. 2 (drawing of Kennedy patent).
" " Nos. 3 and 3x (handles of old nipper).
" " No. 4 (old nipper jaws).
" " No. 5 (old nipper side plates).
" " No. 6 (specification and drawing of Hall's patent, No. 64664).
" " No. 7 (specification and drawing of Hall's patent, No. 209,677).
" " No. 8 (old nipper).
" " No. 9 (Judge's sketch).
" " No. 10 not found in the box.
" " No. 11 (copy French patent).
" " No. 12 (copy specification and drawing of Johnson's patent).
" " No. 13 (letter from F. A. Prescott).

Hall's Exhibit No. 14, 15 (specification and drawing prepared by Broadnax.)
" " No. 16 (nipper with pin gearing between the handles, not found in the box).
" " No. 17, 18 (nipper jaws).
" " No. 19 (milling-vise jaws).
" " No. 20 (completed nipper).
" " "Templates."
" " "Drop Forgings."
234 Johnson's Exhibit A (circular of Interchangeable Tool Company).
" " B (sketch on card).
" " C (skeleton model).
" " D " "
" " E (letter).
" " F (agreement between Interchangeable Tool Company and Gustam).

It is agreed between counsel that the said exhibits remain in the custody of complainant's counsel, to be produced by him from time to time for the inspection of defendants' counsel until they are put in evidence in this cause.

HORACE BARNARD,
Complainant's Solicitor.
AMOS BROADNAX,
Defendants' Solicitor.

126 Q. In answer to Q. 47 you state that you first conceived the idea of connecting the nipper handles by a gearing the first of January, 1877. Please to state why you did not embody that idea in your patent of November 5, 1878.

Objected to as calling for reasoning and argument.

A. My idea, in the first place, was that it would add considerably to the expense of manufacturing the tool. I also thought that by making them perfectly uniform it would be unnecessary.

127 Q. I read to you Q. and A. 103 and 104:

"State, if you please, when you first heard that Mr. Johnson made any claim to any invention or any improvement upon your nipper.

"A. About October, 1880.

235 "From whom did you first hear it?

"A. Henry G. Tompson, the complainant here."

Before you got this information from Henry G. Thompson had you already had an application prepared for a patent in the United States?

Objected to, as such application must be in writing and must be produced or accounted for, and irrelevant and immaterial.

A. I had.

128 Q. Please to examine the papers now shown you, marked

"Hall's Exhibits Nos. 14 and 15, J. E. B., October 12, 1881," being the same exhibits that were used in the interference between Hall and Johnson, and state, if you please, what they are.

A. It is the petition, specification, and drawing I referred to in my previous answer.

129 Q. State, if you please, who prepared that application.

A. Mr. Amos Broadnax.

130 Q. When was it prepared?

A. During the month of July, 1880.

Papers offered in evidence and marked Defendants' Exhibit Hall's Application Prepared by Broadnax, J. E. B., Sp. Ex'r, March 29, 1884.

131 Q. Please to state whether this specification and petition is signed by you, and when and where.

A. It is signed by me—signed at Milford, Conn., during the month of July, 1880.

132 Q. Please to carefully read that specification and say whether you find anything in it appertaining to the lips over the ends of the spring coming together, so as to form a bridge over the top of the spring.

Objected to, as the writing speaks for itself and is in evidence.

236 A. I have read it and I do not find anything in reference thereto.

133 Q. State, if you please, who the inventor is of the nipper illustrated, described, and claimed in that specification and drawing.

Objected to as calling for a conclusion of law from other facts.

A. I am.

134 Q. At the time that specification and drawing was made and signed by you had you heard from Mr. Moses C. Johnson or any one else that he claimed to be the inventor of the whole or any part of the nipper illustrated and described therein?

Objected to as irrelevant and immaterial.

A. I had not.

Adjourned until Thursday, April 3d, 1884, at 1 p. m., at same place.

NEW YORK, *April 3d*, 1884—1 o'clock p. m.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Direct examination of Mr. HALL continued:

135 Q. Referring now to the application for the patent prepared by Broadnax, and which has been put in evidence as Defendants' Exhibit Application Prepared by Broadnax, please to state whether, at the time you signed said application, you also swore to it.

Objected to because defendant is not at liberty to manufacture evidence for himself.

A. I did.

237 136 Q. Was the affidavit annexed to the papers at the time you signed it and swore to it?

Same objection, and also impertinent.

A. The affidavit was with the papers. I don't know whether it was attached to the paper.

137 Q. Where and before whom did you swear to it?

Objected — as irrelevant and impertinent.

A. Sworn to before Judge Fowler, at Milford, Conn.

138 Q. After you had executed that paper, as you — sworn, to whom did you give them, if any one?

Objected to as irrelevant.

A. I gave them to William Q. Judge, with instructions to deliver them to Mr. Amos Broadnax.

139 Q. State, if you know, in whose possession these papers were after you gave them to Mr. Judge down to the time they were put in evidence in the interference case.

A. I saw them in Mr. Broadnax's possession. I have no further personal knowledge.

140 Q. Did you ever have them in your possession after you gave them to Mr. Judge?

A. No.

141 Q. State, if you know, why they were not filed in the Patent Office.

Objected to as calling for hearsay.

A. Because no money was forthcoming to pay the fees.

142 Q. Do you mean by that that the company had no money to pay the fees?

Objected to as irrelevant.

A. I do.

238 143 Q. Referring again to the lips or projections over the upper end of the nipper of the patent in suit, state, if you please, what, if any, discussion you had with Mr. Johnson or with any officer of the Interchangeable Tool Company as to the importance of making the lips or projections long enough to come together and form a bridge, as described in the patent.

Objected to as incompetent, irrelevant, and making evidence for himself.

A. I never discussed the subject or had any conversation with Mr. Johnson in reference to the matter, and never spoke to any officer of the company until within a few weeks from this time.

144 Q. State whether you obtained a patent for this nipper of the patent in suit in France.

Objected to as irrelevant.

A. I did.

145 Q. State when you first took measures to obtain a patent for this nipper in France.

Objected to as to "taking measures."

A. The first step taken, to my recollection, was a resolution passed by the board of directors of the Interchangeable Tool Company directing an application to be made for a patent in France and other countries; that was in October, 1879?

Answer objected to, as the resolution, being in writing, should be produced.

146 Q. Please to examine the papers now shown you and state if you recognize them as the specification and drawing making part of the French patent.

Objected to as leading.

239 A. I recognize them as such.

Papers offered in evidence and marked Defendants' Exhibit Hall's French Patent (being Hall's Exhibit No. 11 in the interference case), J. E. B., Sp. Ex'r, April 3, 1884.

147 Q. How does the nipper, Defendants' Exhibit Hall's No. 1 Nipper, differ in construction from Defendants' Exhibit Hall's No. 2 Nipper?

Objected to because it has not been shown when these two exhibits were made, by whom made, and for what purpose, and as irrelevant and improper.

A. The No. 1 nipper differs from the No. 2 nipper in the method of connecting the handles. The prong and notch is dispensed with in the No. 1 nipper and a recess substituted in both handles, in which is inserted a movable pin.

148 Q. Are all of the No. 1 nippers manufactured by the Interchangeable Tool Company manufactured like Defendants' Exhibit Hall's No. 1 Nipper?

A. All of that size have been made in that way.

149 Q. How does the nipper, Defendants' Exhibit Hall's No. 6 Nipper, differ in construction from Defendants' Exhibit Hall's No. 2 Nipper?

Objected to on the same grounds as to Q. 147.

A. It differs in that the projecting lip and notch used in the No. 2 nipper for holding the spring is entirely dispensed with, the spring in the No. 6 being held in position by a recess directly under the cutting edges of the jaws. A further difference consists in jam-nuts being used on the threads of the screws.

150 Q. Are all the No. 6 nippers manufactured by the
240 Interchangeable Tool Company like Defendants' Exhibit Hall's No. 6 Nipper?

Objected to as irrelevant.

A. All like the exhibit. The exhibit is a sample of all of that size.

151 Q. Have you, or either of your codefendants, so far as you know, manufactured any nippers like either of the exhibits—Hall's Nipper No. 1, Hall's Nipper No. 2, Hall's Nipper No. 6—excepting as officers of the Interchangeable Tool Company and for that company?

Objected to as irrelevant and incompetent.

A. I have not, and, to the best of my knowledge and belief, my codefendants have not.

Defendants' counsel calls upon complainant's counsel to produce the model, "Johnson's Exhibit C," referred to in the Interference Record, which he has put in evidence, for the purpose of being put in evidence now in this case, to the end that he may examine the witness now under examination upon that model, and gives him notice that he cannot proceed with the examination unless such exhibit is produced in evidence and put in the custody of the examiner.

Complainant's counsel produces the model, "Johnson's Exhibit C," in question, and states that it is one of complainant's exhibits. He offers the same to defendants' counsel in order that he may examine defendant Hall as a witness thereon, but declines to part with the possession of his said exhibit, "Johnson's Exhibit C."

Defendants' counsel responds that the examiner is entitled to the custody of exhibits, and that he has a right to have all the
241 exhibits in the custody of the examiner, to the end that either of the parties may have their experts examine them at any time without visiting the counsel's office of the opposing party, but that he will proceed with his examination as far as he can, and that in the event that he wants the exhibit to examine with his expert he will insist upon its being produced to the examiner for that purpose.

Complainant's counsel accedes, but points out the fact that the examiner now occupies office with defendants' counsel.

152 Q. Please to examine the skeleton model now shown you, marked Johnson's Exhibit C, being the same exhibit offered in evidence on behalf of Johnson in said interference, and state whether you were present at the examination of Moses C. Johnson at the time that model was put in evidence in the interference case.

Objected to as immaterial.

A. I was.

153 Q. State whether you examined that model at that time.

Same objection.

A. I did.

154 Q. State whether the model is the same now as it was at that time.

A. I notice one difference, that the letter "W," scratched on one of the jaws, was not there when it was first produced. I do not notice any other difference.

155 Q. State when you first saw that model.

A. On the day it was first produced in the interference case. I can't recall the date. It was the day it was put in evidence.

242 156 Q. Are you positive that you never saw that model in the works of the Interchangeable Tool Company?

A. I am.

157 Q. State whether it would be possible to make the skeleton jaws of Johnson's Exhibit C of the old forgings of the Interchangeable Tool Company—I mean, of course, the forgings that were made in the dies of the company before they were altered, as you have testified.

A. I think not.

158 Q. Would it be possible for the die-sinker to sink the dies to make the jaw forgings in by the skeleton jaws of this Johnson Exhibit C?

Objected to because he is not shown to be an expert in such matters.

A. No.

159 Q. Please to examine the templates now shown you, and state if you know what they are.

A. They are the jaw templates for the No. 2 nipper belonging to the Interchangeable Tool Company.

Templates offered in evidence and marked Defendants' Exhibit Templates, J. E. B., Sp. Ex'r, April 3d, 1884.

160 Q. State if you know by what model these templates were made.

A. The model known as the Jencks model, about which I have testified.

161 Q. State who made these templates.

A. They were made, to the best of my knowledge and belief, by Mr. E. A. Whittlesey.

Objected to as hearsay.

162 Q. Were they made before the dies were altered, as you have testified?

Objected to as calling for hearsay.

243 A. They were.

163 Q. Were the milling-vise jaws and the mills for the No. 2 nipper made by these templates?

Objected to as not having been shown that he knew.

A. They were. I know it.

164 Q. Please to try the templates upon the jaws of Johnson's Exhibit C, and state whether those jaws have been milled in the milling tools and milling-vise jaws of your No. 2 nipper.

Objected to as immaterial.

A. One of the jaws has certainly been milled by a gang of mills used for milling the jaws of the No. 2 nipper. The milling marks are plainly visible on the jaw.

165 Q. Please to produce the milling-vise jaws in which the jaws of your No. 2 nipper were milled down to October, 1879.

A. I now produce such milling-vise jaws, being the same vise jaws as were in evidence in the interference case as Hall's Exhibit No. 19.

Vise jaws offered in evidence and marked Defendants' Exhibit Milling-Vise Jaws, J. E. B., Sp. Ex'r, 3 Ap'l, 1884.

166 Q. Please to try the skeleton jaws of Johnson's Exhibit C in these milling-vise jaws and state whether, in your opinion, they have been milled in those vise jaws, and give such reason as you may have for any opinion you may express.

Objected to as calling for an opinion; also for reason and argument, and a conclusion therefrom.

244 A. In their present shape they could not be milled in vise jaws. They have been filed down since the milling on the sides. I believe that the jaws were milled in these vise jaws, but it was done from forgings.

Move to strike out answer, as it relates to belief or expresses hearsay.

I mean that the jaws were milled from forgings before they were filed down on the sides.

Objected to as hearsay.

Defendants' counsel requests examiner to call witness' attention to his omission to answer that portion of the question which calls for "the reason for his opinion."

Witness, under objection from complainant's counsel, continues: The reason for my opinion is that the jaw has been milled beyond a doubt, and that it could be only held in the vise jaws for milling while in the shape of a rough forging.

167 Q. Do the edges of the skeleton jaws conform exactly to the shape of the milling-vise jaws?

Objected to as immaterial.

A. They do, as nearly as it is practical to have them; there must be a little clearance to protect the milling tools.

Adjourned until Friday, April 4, 1884, at 1 o'oclock p. m., at same place.

NEW YORK, *April* 4, 1884—1 o'clock p. m.

Parties met pursuant to adjournment.

Present: Same counsel, same witness.

Direct examination of Mr. THOMAS G. HALL continued:

168 Q. In answer to question 157 you say you think it would not be possible to make the skeleton jaws, Johnson's Exhibit C,
245 of the old forgings. Please to state why you think that would not be possible.

Objected to as calling for an opinion, argument, and being cross-examination, and because witness' answer was, "I think not," to a leading question.

A. Because there was not sufficient stock or metal to clear up under the milling tools at the point where the lip projects over the spring and also on the shank of the jaw—I mean as regards length of the latter.

169 Q. Do you mean that the old forging was too short and too narrow to produce the jaw of the skeleton model?

Objected to as leading.

A. I do.

170 Q. In answer to question 76 you say that after the model nipper was completed, as you have stated, that "the next step taken was the making of templates from that model. These templates were used for the purpose of making the milling tools and mill." Please to state whether Defendants' Exhibit Templates that were put in evidence yesterday are the templates referred to in the answer I have quoted.

A. They are.

171 Q. And state, also, whether Defendants' Exhibit Milling-Vise Jaws are a part of the milling tools referred to in that answer.

A. They are.

172 Q. In answer to questions 70 and 71 you say that the pins were put in the handles of the nipper opposite the fulcra by way of experiment. Please to state now what the object of that experiment was.

Objected to, because the questions recited were leading and an expression of the understanding of defendants' counsel, and the
246 answer of witness to each of same was "It was."

A. The principal object in having it done at that time was to show Mr. J. F. Oliver and Mr. William Q. Judge that the tool would work properly in that way.

173 Q. You mean with a gearing between the handles?

Objected to as leading.

A. I do.

174 Q. Please to examine the handles now shown you and state if the nipper handles heretofore referred to by you in your testi-

mony, in which the pins were put for the purpose of experiment, as you have testified.

A. They are the identical handles.

175 Q. State whether those are the same handles that were put in the interference case as Hall's Exhibits 3 and 3x.

A. They are.

Handles offered in evidence and marked Defendants' Exhibit Nipper Handles, J. E. B. Sp. Ex'r, 4 Ap'l, 1884.

176 Q. What was Hall's Exhibit No. 4 in the interference case?

A. That was a No. 2 size nipper, with pin gearing connecting the handles.

177 Q. State when the pin gearing was put in the handles of that nipper referred to in your last answer.

Objected to as repetition.

A. About the latter part of April or the first part of May, 1879.

Objected to, whole answer, as hearsay.

247 179 Q. Who put the pins in?

A. I believe Mr. James M. Adams; I heard him say he did.

Defendants' counsel here states that he cannot put in evidence the nipper referred to by the witness in his last answers for the reason that it has not been returned from the Patent Office, but he engages to put it in in case he can get possession of it, and reserves his right to do so.

Complainant's counsel consents that he may do so, on proper identification of said Exhibit No. 16, interference.

179 Q. Please to examine the nipper now shown you and state whether you recognize it as Hall's Exhibit No. 20 in the interference case.

A. I do.

Nipper offered in evidence and marked Defendants' Exhibit No. 20.

180 Q. I place in your hands Exhibit No. 18 and Exhibit Drop Forging in the interference case. State whether they are the drop forgings referred to by you in your testimony as having been made in the new dies.

Objected to, not having been so testified to by witness of his own knowledge.

A. They are drop forgings made in the new dies. I am not positive whether I have testified to this before or not in this case. I have previously done so, however.

181 Q. State of what parts of the nipper they are the drop forgings.

A. Jaw and handle of No. 2 nipper.

Drop forgings offered in evidence and marked Defendants'
248 Exhibit Drop Forgings, J. E. B., Sp. Ex'r, April 4, 1884.

Complainant's counsel states that he finds in the lists of exhibits forwarded from the Patent Office, filed there by Thomas G. Hall in the interference case, Hall's Exhibit No. 17, J. E. B., notary public, Dec. 10, 1881, testified to by this witness in that case as one of the pair of nipper jaws, and complainant's counsel calls upon defendants' counsel to put it in with the other nipper jaw, Hall's Exhibit No. 18, J. E. B., notary public, Dec. 10, 1881.

To which defendants' counsel responds that he knows of no reason why the exhibit should be put in, and declines to put it in and leaves complainant's counsel to put it in if he chooses to.

182 Q. Was the nipper made by J. H. Jencks & Co. and as altered by the Interchangeable Tool Company, as you have stated, known as the model nipper of the company?

Objected to because it is cross-examination and this model has not been produced.

A. It was.

183. Q. Whose business was it to take charge of the nipper and have it in safe keeping?

A. The foreman of the shop.

184 Q. Referring now to Johnson's Exhibit C, state, if you please, whether the projections over the top of the spring come together when the jaws of the nipper are closed.

Objected to as immaterial.

A. They do not.

249 185 Q. What, if any, importance did you or do you or any of the officers of the Interchangeable Tool Company attach to the lip over the head of the spring projecting any further than is just necessary to hold the spring in position?

Objected to as leading and calling for hearsay, and immaterial.

A. As far as I am concerned, I attach no importance whatever to it. I think the officers of the company agree with me, for I have never heard any of them attach any importance to it.

186 Q. State when the first forgings were delivered to the Interchangeable Tool Company that were made in the new dies for the jaws and handles of the nipper.

Objected to, as it is not shown that witness knows.

A. About the first of June, 1879.

187 Q. State whether you were present at the examination of J. M. Adams in the interference case when Johnson's Exhibit D was put in evidence.

A. I was.

188 Q. Please to state whether the model now shown you is that Exhibit D.

A. To the best of my belief, it is.

189 Q. State how that model differs in principle, purpose, and mode of operation from Johnson's Exhibit C.

Objected to as not being an expert.

A. It does not differ in principle; is somewhat more complicated in the construction of the gearing, etc. I notice an absence of the projecting lip which holds the spring, the notch being there, however, for the purpose of holding the spring.

250 190 Q. State, if you please, what experience you have had as a mechanic.

A. I have been a mechanic since boyhood; never in any other occupation that I can recall.

191 Q. In what department of mechanics have you been at work?

A. I am by trade a piano-forte maker, but I have been engaged about twelve or fifteen years in the manufacture of tools, more particularly cutting nippers.

192 Q. Have you in that time made yourself thoroughly familiar with the actual practice of making tools, and especially cutting nippers?

Objected to as leading.

A. I have.

193 Q. And with all the machinery and tools used in their manufacture?

A. Yes.

194 Q. I read to you questions and answers 103 and 104.

Counsel reads:

State, now, the occasion upon which Mr. Thompson told you that Mr. Johnson claimed to be the inventor of the nipper or any part of it.

Objected to as immaterial.

A. The occasion was a meeting of some of the creditors of the Interchangeable Tool Company, held in the company's office at Milford, Conn., in October, 1880.

195 Q. What did Mr. Thompson say to you upon that occasion respecting Mr. Johnson's claim to the nipper?

Same objection.

A. He told me that he had bought a patent which Mr.
251 Johnson had obtained, and that he had bought it for the protection of the company, meaning the Interchangeable Tool Company.

Last part of answer objected to.

196 Q. What did Mr. Thompson say Mr. Johnson's patent was for?

Objected to, the patent being in evidence.

A. It was for an improvement, he said, upon the nipper.

197 Q. Was Mr. Thompson a stockholder of the Interchangeable Tool Company at the time?

Objected to as immaterial.

A. I cannot recollect positively, but I can tell by reference to memoranda or to the company's books.

198 Q. Was Mr. Thompson aware of the extent to which the company had been manufacturing these nippers?

Objected to as immaterial.

A. He certainly must have been, as his own private business was carried on in the same building and he was there every day, as near as I can recollect.

199 Q. Did he make any claim against the company for the use of the patent?

Same objection.

A. Never, to my knowledge, unless the commencement of legal proceedings constitutes a claim.

200 Q. Well, did he make any claim before the commencement of his legal proceedings?

Same objection.

A. Not to my knowledge.

252 201 Q. What were the business relations between the Interchangeable Tool Company and Mr. Thompson?

Same objection.

A. He was a stockholder up to a certain date, which I cannot fix without reference to books or memoranda, after which he was the owner of the driving machinery in the factory at Milford, which machinery he leased to us for the purpose of carrying on our business. When we left Milford the business connection ceased.

202 Q. Has Mr. Thompson ever manufactured any of these nippers?

A. Not to my knowledge.

203 Q. Has he to your information and belief?

Objected to as calling for hearsay.

A. No.

Adjourned until Monday, April 7, 1884, at 1 p. m., at same place.

NEW YORK, *April* 7, 1884—1 p. m.

Present: Same counsel, same witness.

Direct examination of Mr. HALL continued:

204 Q. Referring now to Defendants' Exhibit Milling-Vise Jaws, state whether they are the first vise jaws the Interchangeable — Company had or used in the manufacture of their nipper.

A. They are.

205 Q. State whether you or the Interchangeable Tool Company had or used any milling-vise jaws or mills in the manufacture of your nipper out of the old forgings.

A. No; neither I nor they did.

253 206 Q. Were all of the nippers that were made by you or the company of the old forgings made by hand—I mean without the aid of milling tools?

A. Yes; they were.

207 Q. Please to look at the nipper jaw I now show you and state whether you recognize it as Hall's Exhibit No. 17 in the interference.

A. I do.

Nipper jaw offered in evidence and marked Defendants' Exhibit No. 17, J. E. B., Special Ex'r, April 7, 1884.

208 Q. Look at the nipper jaws now shown you and state if you identify them as Hall's Exhibit No. 4 in the interference.

Nipper jaws offered in evidence and marked Defendants' Exhibit No. 4 Nipper Jaws, J. E. B., Special Ex'r, April 7, 1884.

209 Q. State who made those jaws, where they were made, and when.

A. I made them in January, 1879, at the shop at No. 57 Hudson street, New York.

210 Q. How was the spring put in between those jaws?

Objected to on the ground that no spring was ever shown to be there.

A. The spring was seated where the notches appear on the inside of the jaw.

211 Q. What were the holes made for that appear in the notches of those jaws?

A. For the insertion of a pin, which extended over the open space between the two jaws.

212 Q. Did the upper end of the spring abut up against the lower side of that pin?

A. It did.

254 213 Q. Was that pin intended as a substitute for the pin in the handles of the nipper now used to keep the cutting edges of the jaws from slamming together?

A. There is no pin in the handle; there is a screw. It was an experiment in that direction. I should say it was a part of the object in putting in that pin.

214 Q. Please examine the nipper side plates now shown you and state if you recognize them as Hall's Exhibit No. 5 in the interference.

A. I do.

Side plates offered in evidence and marked Defendants' Exhibit No. 5, side plates, J. E. B., Sp. Ex'r, April 7, 1884.

215 Q. State whether Defendants' Exhibit No. 4, nipper jaws, De-

fendants' Exhibit No. 5, side plates, and Defendants' Exhibit Nipper Handles (put in evidence on April 4, 1884) are all parts of the same nipper.

Objected to as leading.

A. They are.

216 Q. State whether you identify the nipper now shown you as Hall's Exhibit No. 8 in the interference.

A. I do.

Nipper offered in evidence and marked Defendants' Exhibit No. 8, old nipper, J. E. B., Sp. Ex'r, April 7, 1884.

217 Q. Look at the specification and drawing now shown you and state if you recognize it as Hall's Exhibit No. 6 in the interference.

A. I do.

Specification and drawing offered in evidence and marked Defendants' Exhibit Hall's Patent of March 14, 1867, J. E. B., Sp. Ex'r, April 7, 1884.

255 218 Q. Look at the drawing now shown you and state if you identify it as Hall's Exhibit No. 1 in the interference.

A. I do.

Drawing offered in evidence and marked Defendants' Exhibit No. 1, Johnson's drawing, J. E. B., Sp. Ex'r, April 7, 1884.

219 Q. Look at the sketch now shown you and state if you identify it as Hall's Exhibit No. 9 in the interference.

A. I do.

Sketch offered in evidence and marked Defendants' Exhibit No. 9, lead-pencil sketch, J. E. B., Sp. Ex'r, April 7, 1884.

220 Q. Look at the specification and drawing now shown you and state if you recognize it as Hall's Exhibit No. 12 in the interference.

A. I do.

Specification and drawing offered in evidence and marked Defendants' Exhibit No. 12, Johnson's patent, J. E. B., Sp. Ex'r, April 7, 1884.

221 Q. State if you recognize the drawing now shown you as Hall's Exhibit No. 2 in the interference.

A. I do.

Same offered in evidence and marked Defendants' Exhibit No. 2, drawing Kennedy nipper, J. E. B., Sp. Ex'r, April 7, 1884.

222 Q. State if you recognize the specification and drawing now shown you as Hall's Exhibit No. 7 in the interference.

A. I do.

256 Same offered in evidence and marked Defendants' Exhibit No. 7, Halls patent of November 5, 1878, J. E. B., Sp. Ex'r, April 7, 1884.

223 Q. State if you recognize the letter now shown you as Hall's Exhibit No. 13 in the interference.

A. I do.

Letter offered in evidence and marked Defendants' Exhibit No. 13, Prescott's letter, J. E. B., Sp. Ex'r, April 7, 1884.

Direct examination closed.

Cross-examination by Mr. BARNARD:

224 X Q. Have you been sworn and examined as a witness in the interference regarding the priority of the invention of the nipper in question, between yourself and Moses C. Johnson as parties?

A. I have.

225 X Q. Look at the printed book now shown you and tell me what it is.

A. It is the printed testimony as taken in behalf of one Thomas G. Hall in the interference case; my testimony is found on pages 4 to 40, both inclusive; also on pages 116 to 134, both inclusive.

226 X Q. Is what you testified to on that interference true?

A. It is.

227 X Q. In answer to Q. 212, which I read you, say, "It did." How was that spring fastened, if at all?

Counsel reads Q. 212.

A. It was unfastened.

228 X Q. Was there ever a spring between those two jaws?

A. There was.

257 229 X Q. Was that pair of jaws ever a part of a finished nipper?

A. Yes.

230 X Q. What has become of the rest of that nipper?

A. The spring and screws have been lost; the other parts have been placed as exhibits in this case.

231 X Q. Name the exhibits you refer to.

A. Defendants' Exhibits Nipper Handles, April 4, 1884; No. 4, nipper jaws, April, 1884, and No. 5, side plates, same date.

232 X Q. How many pairs of nippers like this one was ever made?

A. That is the only one exactly like that, I think.

233 X Q. Did you do all the work on this nipper?

A. No.

234 X Q. Who, besides you, worked on it?

A. The drop forgings were made by the Colt's Arms Company. I had some assistance from a man named Conners in filing up the handles. I think Mr. Adams afterwards—that is, after the nipper was made—inserted the pins in the handles.

235 X Q. What particular portion of the work did you do?

A. Filed up in jaws, drilled the holes in the plates, pins, and handles, and fitted the nipper together. The screws were made by the Hartford Machine Screw Company.

236 X Q. Who and what was Mr. Adams at this time—while the nipper was being made?

A. To the best of my recollection, Mr. James M. Adams was working for Messrs. Jencks & Co., of Centre street, N. Y.

237 X Q. Can you give the dates between which this nipper was begun and finished? If so, do so.

A. With the exception of the insertion of the pins forming the gearing between the handles, it was begun and finished in the early part of January, 1879.

238 X Q. When were the pins inserted between the handles, and where and by whom?

258 A. The latter part of April, 1879, at 57 Hudson street, N. Y., I believe, by Mr. James M. Adams.

239 X Q. Was Mr. James M. Adams there in the employ of the Interchangeable Tool Company, and in what capacity?

A. He was; as foreman of the shop.

240 X Q. You have identified nipper jaws, Defendants' Exhibit No. 17, and also nipper jaws, Defendants' Exhibit No. 4, in answer to QQ. 207 and 208. Which of those two exhibits was made the first?

A. No. 17 was made first.

241 X Q. When, where, and by whom was No. 17 made?

A. That die was forged by the Colts Arms Company about September or October, 1878.

242 X Q. When did you first make the acquaintance of Mr. Thompson, the complainant, and where and how?

A. I think the latter part of 1879, at Milford, Conn., by introduction of Mr. Henry S. Rogers, or it may have been his brother, Colonel Rogers.

243 X Q. When did you, as president of the company, receive from him the driving machinery at Milford, and when did you move the shop to Milford?

Objected to as not cross-examination, inasmuch as the witness has sworn that he never purchased any machinery from Mr. Thompson.

A. My impression is that the machinery was purchased a few weeks prior to the removal of the factory to Milford, the latter being about February, 1880.

244 X Q. What was given Mr. Thompson for this machinery?

A. Stock in the Interchangeable Tool Company. That was the way in which he became a stockholder.

Adjourned until April 8, 1884, at 1 p. m., same place.

Further adjourned, by consent, until April 14, 1884, at 1 p. m., same place.

259 NEW YORK, *April* 14, 1884.

Further adjournment, by consent, until April 17, 1884, at same time and place.

NEW YORK, *April* 17, 1884.

Parties met pursuant to adjournment.

Present: Same counsel, same witness.

Cross-examination of Mr. HALL continued:

245 X Q. How long did Mr. Thompson remain a stockholder of the Interchangeable Tool Company?

A. I couldn't answer positively without reference to the company's books.

246 X Q. About how long?

A. I should say a year—more or less.

247 X Q. How much less than a year?

A. I cannot give any more definite answer without reference, as before mentioned.

248 X Q. Do you know when he ceased to be a stockholder?

A. Without reference to the books I do not, although I remember the occurrence.

249 X Q. What occurrence, and when did it occur?

A. The occurrence I refer to is his transferring the stock back to the company. I cannot tell the exact date when it occurred.

250 X Q. Where was the transfer made?

A. As near as I can recollect, it was in New Haven.

251 X Q. Did the company have an office and keep its books there?

A. No.

252 X Q. How, then, was the transfer made?

A. I think it was done in our attorney's office—Judge Stoddard's.

253 X Q. Question repeated.

A. I refer in the answer to this question to the arrangements made for transferring the stock from Mr. Thompson back to the company.

260 254 X Q. Had Mr. Thompson brought suit against the company, and was this transfer back and the surrender of the engine and boiler to Mr. Thompson the result of such suit?

Question objected to as not cross-examination.

A. Mr. Thompson had brought suit againt the company and had attached the boiler and engine, but this transfer was not the immediate result of these legal proceedings.

255 X Q. Were these proceedings continued after that surrender of boiler and engine and retransfer of stock?

A. I think not.

256 X Q. Where was Mr. Thompson's office when your company was in Milford?

A. Part of the time in the second story of the company's building in Milford; this time was from the spring of 1880 to the fall of 1880.

257 X Q. Were you, during that time, ever in Mr. Thompson's office when he was there; if so, how often?

A. Yes; many times.

258 X Q. Did you ever talk with him about the nipper the company was then manufacturing?

A. Yes.

259 X Q. Was there ever any talk between you and Mr. Thompson of the difference between that nipper and the one shown in the drawing of your patent of November 5, 1878?

Objected to as not cross-examination, as impertinent and irrelevant.

A. I can't recall any such conversation.

260 X Q. Was nothing ever said about that difference by you or Mr. Thompson?

A. I think Mr. Thompson has spoken to me upon that
261 subject since he left the company's building at Milford. I cannot fix the date.

261 X Q. Did you not speak to him about it at Milford?

A. Not that I can remember.

262 X Q. Can you state when Mr. Thompson spoke to you about this?

A. I think it was in Mr. Broadnax's office in New York.

263 X Q. Anywhere else?

A. Not that I can remember.

264 X Q. Did you ever speak to Mr. Thompson about this improved nipper—tell him anything about the progress of improving it? State the first time.

A. I spoke about the patent claimed by him shortly after he had informed me that he possessed it, but I can't recall any conversation with him in reference to the progress of improving it. The nipper was improved when he first saw it, when I showed it to him in the early part of 1880.

265 X Q. What did you say when you showed him the nipper?

A. I can't recall the exact conversation; I merely exhibited it to him.

266 X Q. Did you ever say anything to him in Milford about Johnson's claiming to have made any improvements on the nipper?

A. I did.

267 X Q. When and where did you say this, and what did you say?

A. In the company's building at Milford, during the fall of 1880. I denied the right of Mr. Johnson to any such invention. I told Mr. Thompson that I was the inventor of the improvements; I cannot recall the precise words used in the conversation.

268 X Q. In what part of the company's building did you say this?

A. In the company's office, I think.

269 X Q. Who were present?

262 A. I think on one occassion Mr. J. F. Oliver was present. I think Mr. Henry S. Rogers was present at the same time; at another time I think William Q. Judge was present.

270 X Q. Did you not have conversations on this subject with Mr. Thompson in his office?

A. Possibly.

271 X Q. Cannot you be more positive in your answer; and, if not, why not?

A. I cannot, because I cannot distinctly remember.

272 X Q. In the many visits which you say you paid to Mr. Thompson in his office did not you talk with him about these claims of Johnson?

A. I cannot recall any. I visited him there a great many times in a friendly way, when no business matters were spoken of.

273 X Q. Did you not tell him you had a patent for the improved nipper when you bought the engine and the boiler?

A. I told him I had a patent on the nipper, but at that time nothing was said about improvements.

274 X Q. Was anything said about the improvements claimed by Johnson, by you or Mr. Thompson, before bringing the attachment suit for the boiler and engine?

A. I think not.

275 X Q. Did not Mr. Thompson inform you that you did not have any patent for the improved nipper made in Milford?

A. Yes; he told me that.

276 X Q. When did he tell you this?

A. This was at the time I refer to as having a conversation in Mr. Broadnax's office. I think it was in 1881.

277 X Q. Did not Mr. Thompson inform you of this before he brought the attachment suit?

A. No.

278 X Q. Were you not informed of this fact by any one before that suit was brought?

A. I don't recall any one's giving me that information.

263 279 X Q. Did you not know that Johnson claimed that invention before that suit was brought?

A. I can't recall the exact date that the attachment suit was brought. The first I heard of Johnson's having claimed the invention was in the latter part of August or first of September, 1880.

280 X Q. From what source did you learn it?

A. From Henry G. Thompson.

281 X Q. Was his the only information you had on that subject?

A. That was the only information or knowledge I had at that time on that subject.

282 X Q. Do you mean to say that you had not known before August, 1880, that Johnson had made those improvements?

A. I mean that it was the first knowledge that I had that Mr. Johnson claimed them as his invention.

283 X Q. Had you not heard any conversation about these improvements as having been made by him (Johnson) in New York and Milford before August, 1880?

A. I had not.

284 X Q. Had you never seen any models made by Johnson—experimental or other? And, if so, state what ones you had seen.

A. The only models were the model nipper No. 1, the model nipper No. 2, made by Johnson at Jencks & Co.'s, and the model

nipper No. 4. I never saw any experimental models made by Johnson.

285 X Q. Did you ever see Johnson's Exhibit C, either as completed and put in evidence in the interference case or while it was being made, before the removal of the company to Milford?

A. Never saw it before it was introduced into the interference case.

286 X Q. Did you never see any parts of it before then?

A. No; not to my knowledge.

287 X Q. Did you never hear it spoken of before the removal to Milford?

264 A. No.

288 X Q. Do you mean to state that you did not know that the improved nipper made at Milford was made differently from the model nipper No. 1—the model nipper No. 2—made by Johnson at Jencks & Co.'s?

A. The nipper made at Milford was the same as the models No. 1 and No. 4, and like the No. 2, made at Jencks & Co.'s, after it was altered by putting the gearing in the handles.

289 X Q. State when and where that model No. 1 and that model No. 4 was made and by whom.

A. They were made by Moses C. Johnson, in the shop in Hudson street, New York, in the summer or fall of 1879, and the model No. 2 was made at Jencks & Co.'s by Moses C. Johnson, in January, 1879.

290 X Q. State when, where, and by whom and what alterations were made in the model No. 2 (Jencks' model).

A. The alterations were made about the 1st of May, 1879, by Moses C. Johnson, at 57 Hudson street, and consisted in interlocking the handles.

291 X Q. How often were you in the shop in Hudson street during this period of alterations?

A. Every day.

292 X Q. Did you see what work was being done in the way of making these alterations? Did any one show you any part of the work and who showed you?

A. I saw Mr. Johnson at work on the handles and saw them when completed. He dovetailed pieces of metal in the handles where the fulcrum is, so as to get stock sufficient to make the prong and notch which forms the gearing. That is the only alteration on the Jencks model.

293 X Q. What other differences from the Jencks model are in the improved nipper made at Milford, and by whom were they made?

A. We made the lip over the head of the spring a trifle longer when we machined the jaws, but the model was not altered in that respect.

265 294 X Q. According to what model were the improved nippers No. 2 made, and by whom was that model made?

A. They were made to conform to the Jencks model as altered, with the exception that the lip over the spring was a trifle longer.

295 X Q. Were these differences exhibited in the drawing of your patent of November 5, 1878?

Objected to, as the patent itself is the best evidence and is in evidence.

A. They were not.

296 X Q. Why did you stamp the improved nippers as patented November 5, 1878?

A. Because I had a patent on it.

297 X Q. Were you never informed that these improvements were not covered by that?

Objected to as immaterial—not cross-examination.

A. Mr. Thompson told me so.

298 X Q. When did you first begin to make nippers with milling tools?

A. About the middle of June, 1879.

299 X Q. When did you change your milling tools, if at all? And state what changes you made.

A. We did not make any.

300 X Q. Did you ever change the mills used for the manufacture of the nippers by the company?

A. Only by duplication when they wore out.

301 X Q. Look at Defendants' Exhibit 17 and Defendants' Exhibit 18 in the interference case and state, if you know, which was made first.

A. Exhibit 17 was made first. That was made about October, 1878. The other was made after the first of May, 1879.

266 302 X Q. Look at Defendants' Exhibit Hall's No. 1 Nipper and state when, where, and by what workman that was made, and, first, how it came into your hands.

A. I got it from the Interchangeable Tool Company, during the present year, at their factory in Brooklyn; it was made by the different hands employed there.

303 X Q. Look at Defendants' Exhibit Hall's No. 2 Nipper and state how you got it, when, and where, and by what workmen it was made.

A. Same answer as to last question.

304 X Q. Is Defendants' Exhibit Hall's No. 2 Nipper identical with all the No. 2 nippers made and sold by the company since July, 1879?

A. Yes; it is.

305 X Q. Does it contain all the improvements claimed to have been invented by Moses C. Johnson?

A. No; I think not.

306 X Q. What ones does it not contain?

A. The lips projecting over the head of the spring do not close the aperture between the jaws, as is claimed by Mr. Johnson—that is, when the cutting edges are together. It contains all the rest, as I understand by reading Mr. Johnson's patent.

307 X Q. How much shorter is each lip?

A. One sixty-fourth of an inch or more, judging by eye-sight.

308 X Q. Do you know when Complainant's Exhibit 3d was made?

A. I think that it must have been made prior to 1882; my reasons for thinking so is because it was stamped with a stamp that has not been used in a couple of years; it may have been made longer ago than that. The stamp that we are now using, and have been for the last two years, is different from the one used on Complainant's Exhibit 3d. The present stamp is "Hall's pat., Nov. 5, '78;" and all of that size made since 1878 are stamped in that way.

309 X Q. Did you not make nippers like Complainant's Exhibit 3d after July, 1879?

267 A. We made them until we went into bankruptcy and made an assignment, in August, 1880, in Milford, Conn. We afterwards resumed there and in New York.

Examination adjourned until Friday, April 18, 1884, at same time and place.

NEW YORK, *April* 18, 1884.

Met pursuant to adjournment.

Present: Same counsel, same witness.

Cross-examination of Mr. HALL continued:

310 X Q. How long was the Interchangeable Tool Company in existence before it went to Hudson street, and how long was it there?

A. About four or five months. It was at Hudson street a little over a year—leaving there in February or March, 1880.

311 X Q. I read you Q. 26 and the answer and ask whether you had any written agreement with Jencks & Co.?

(Counsel reads:)

A. No.

312 X Q. With whom did you make the agreement with Jencks & Co.? Give his name.

A. With Mr. Jencks; I think his initials are "J. H."

313 X Q. What did you say to him?

A. I asked him if he would make a model nipper, showing him, at the same time, another nipper and telling him I wanted it made somewhat differently from the one I showed him. These may not be the exact words, but it is the substance of what I said to him. I asked him what his terms would be for making it. I also told him I would furnish the different parts to him.

268 314 X Q. What did he say in reply?

A. He said he could; that his terms would be at the rate of six dollars per day for doing the work. This is the substance of the conversation.

315 X Q. What nipper did you show him?

A. One of the models. I think it had been made by Mr. Crane. It might possibly have been one of the nippers made by hand, about which I have testified.

316 X Q. Can't you be positive in your answer?

A. I feel almost certain that it was one of the models made by Mr. Crane.

317 X Q. What became of this model?

A. I do not know.

318 X Q. Was it not returned to you?

A. I don't know that it ever went out of the possession of the company except by loss.

319 X Q. Did you not leave it with Jencks & Co.?

A. I think not.

320 X Q. Why do you give the answer you do to X Q. 318, "except by loss?"

A. Because I do not remember it ever having been given to any one. I simply showed it to Mr. Jencks.

321 X Q. Was it not necessary that Jencks & Co. should have it in order to make any changes in it?

A. No.

322 X Q. State what words you used in telling Mr. Jencks what changes you required.

A. I could not give the words exactly.

323 X Q. Give them as nearly as you can.

A. I told Mr. Jencks that the model I had was an imperfect one and I wanted him to make it perfect in its proportions, so as to serve as a standard for our work in future. It is impossible for me to recall the precise words or the extent of the conversation. What I have given is about the substance of the conversation. This conversation occurred in the fall of 1878.

324 X Q. How often were you at Jencks & Co.'s on that business?

A. A dozen or more times, I should say.

269 325 X Q. Who did you see there during those calls?

A. I saw Mr. Jencks, but most of the time I think I saw Moses C. Johnson.

326 X Q. And was the so-called Jencks model the result?

A. Yes.

327 X Q. Did you leave the model made by Mr. Crane with Moses C. Johnson?

A. No.

328 X Q. Did you carry it to Jencks & Co. after the first time you called there?

A. I don't remember having done so; don't think I did.

329 X Q. What alteration in it did you require?

A. They consisted mostly in the shape (outline) and the accuracy of the work. The shanks of the jaws were made a little longer for the purpose of increasing the leverage. The main point was to get it perfect in measurement and make the parts interchangeable.

330 X Q. What was the shape of the spring in the Jencks model? Was it like that shown in the drawing of your patent of November 5, 1878, and was it fastened in the same manner?

A. It was V-shaped spring. It was not like the one shown in the patent of November 5, 1878. It was put in the nipper loosely, held in place by notches in the jaws, as in the present No. 2 nipper.

331 X Q. Was the spring so shaped and put in the model made by Crane that you carried and showed to Jencks?

A. I think not, but am not positive.

332 X Q. Had that model any spring at all; and, if so, what kind and how fastened?

A. I give you the best information I can. My impression is that it was a V-shaped spring, held in position by a pin in the bottom end of the spring. I am positive that it had a V-shaped spring.

333 X Q. Of what metal was that Crane model made?

A. Steel.

270 334 X Q. When did you see it last?

A. I don't recall seeing it since the last part of 1878.

335 X Q. In whose charge was it when you saw it last?

A. I could not say; it was not used as a model; it was simply a sample.

336 X Q. Have you ever made any change in the shape of these springs; and, if so, when and where (in the manufacture of nippers by the Interchangeable Tool Company)?

A. We have always used the V-shaped spring; we have never made any change in their shape.

337 X Q. Have you ever had a bill from Jencks & Co. for making this model; and, if so, will you produce it?

A. We had a bill, but what has become of it I cannot say; I will produce it if I can find it.

338 X Q. I read you question 47 and answer.

(Counsel reads:) How do you fix that date so exactly?

A. I recollect it on account of its being New Year's day and I was at home alone all that day.

339 X Q. I read you question 48 and answer.

(Counsel reads:) Where did you get that brass nipper?

A. Made it myself from castings which I had cast for the purpose.

340 X Q. Where and by whom were those castings made and when were they made?

A. I had them made in Mott Haven; I think it was 136th street. I don't recall the man's name; it was at a brass foundry there. I think the business is still carried on there; they were made in 1876, somewhere near the Harlem bridge.

341 X Q. What has become of this brass nipper; when did you see it last?

A. I could not tell you. I have not seen it for a long time; I have not seen it probably in five years.

342 X Q. Did you not attach value to it?

271 A. I did not.

343 X Q. What was the shape and material of pin you say you inserted and where did you insert the same?

A. It was a piece of steel music wire and I inserted it about opposite the centre of the fulcrum hole in the handles.

344 X Q. Did you show this to any one; and, if so, to whom, when, and where?

A. I don't recall having shown it.

345 X Q. Look at Defendants' Exhibit Hall's Pin Gearing and state when, where, and at whose direction it was made.

A. It was made in 1884, at the company's works in Brooklyn, by my direction, on request of Mr. Broadnax.

346 X Q. Are the pins in this exhibit like the pins in your brass model?

A. No.

347 X Q. Did you ever have a drawing made of any gearing like that in this exhibit?

A. Yes; one similar to it in March, 1879.

348 X Q. What, if any, was the difference between that drawing and this exhibit as to the pins; were they of the same shape and manner of insertion?

A. The only difference was that it was a roughly made sketch. Mr. William Q. Judge made the drawing; possibly a little different in shape. I don't know that the method of insertion is shown in the drawing.

349 X Q. Did Mr. William Q. Judge have any model to draw after?

A. No.

350 X Q. Then that sketch was entirely his product?

A. No, it was not.

351 X Q. Who assisted him and what assistance was given, if any, in drawing that sketch?

A. That sketch is Defendants' Exhibit No. 9, lead-pencil sketch. I suggested the idea and made a sketch—I think, two sketches.
272 I incline to the belief that the sketch in the lower corner of the exhibit is one of them; the other represented one pin in one handle and two in the other. I do not know what became of that; left it in Mr. Judge's office.

352 X Q. Where and in whose possession has it been since it was made?

A. I never saw it from the day it was made until the day it was produced in the interference case. I believe it was in Mr. Judge's possession during the interval.

353 X Q. Do you know the exact date on which it was made?

A. The exact day I cannot say; it was during March, 1879.

354 X Q. How are you able to fix upon the month of March in your last answer?

A. I recollect meeting a Mr. Curtis in Mr. Judge's office on business at that time.

355 X Q. What was that business?

A. It was in reference to a proposition Mr. Curtis had made in regard to selling the nippers when ready for market.

356 X Q. How does this help you to fix the date?

A. Because it was an appointment made, and I recall it distinctly.

357 X Q. Where was this appointment made?

A. At 71 Broadway.

358 X Q. Had you seen Mr. Curtis before or had he written you to make the appointment, and where had you seen him?

A. I had seen him at Mr. Judge's office. Mr. Judge had introduced him by name. I did not know his business.

359 X Q. Is this the only way in which you can fix the date on which that sketch was drawn?

A. No; I can still further fix the date by it having been four or five weeks previous to Mr. James M. Adams going to work for the company.

360 X Q. What was Mr. Curtis' proposition to you, if any?

273 A. He wanted to make a contract for the entire sale of our product.

361 X Q. Where were you producing at that time?

A. We were not making any nippers at that time.

362 X Q. Where was the shop of the company at that time?

A. At 57 Hudson street, New York.

363 X Q. Please state the exact terms of Mr. Curtis' proposition.

Question objected to as not cross-examination and not material in any sense, and as totally irrelevant.

A. I can't recall the exact terms; never made any contract with him.

364 X Q. What were you making in the shop in Hudson street at this time?

A. We were not doing any business.

365 X Q. Was nothing being done there?

A. The shop was idle about that time.

366 X Q. Why was it idle?

A. From want of money.

367 X Q. How, therefore, do you account for Mr. Curtis making a proposition to sell all your product?

A. The proposition was a prospective one and in anticipation of a product.

368 X Q. Can you now state what it was in terms?

A. He proposed to take our goods when manufactured and pay us a certain price.

369 X Q. What goods and what price?

A. Nippers; don't remember anything about the price; don't know that any price was mentioned.

370 X Q. What nippers?

A. The nippers that were to be manufactured by us.

371 X Q. Was there no sample of such nippers shown on which to base this offer?

A. Yes.

372 X Q. What was that sample, who showed it, and what was said?

274 A. I showed him the sample nipper made by Mr. Crane; also the Jencks model nipper; the latter nipper was made of soft steel and untempered. The Crane nipper was tempered and could be used practically in cutting wire. I said to him that the nippers to be made by the company would be in appearance like the Jencks model. This is all I recall at this time. The negotiations never amounted to anything.

373 X Q. Is that the last time you saw Mr. Curtis?

A. I think it is; but I might have seen him afterwards.

374 X Q. As a matter of fact, the company never made any nippers on the Crane or Jencks model?

A. Yes; we made some—a few dozen like the Crane model—in Harlem and a few, the early part of 1879, in Hudson street; never made any after the Jencks model until the alteration was made—until the gearing was put in the handle.

375 X Q. By whom was it put in the handle?

A. Mr. Moses C. Johnson altered the handle.

376 X Q. When did Mr. James M. Adams go into the employ of the company?

A. Middle of April, 1879?

377 X Q. In what capacity?

A. As foreman in the shop in Hudson street.

378 X Q. When did Mr. Moses C. Johnson?

A. About the latter part of April, 1879.

379 X Q. What was the first thing done in the alteration of the Jencks model; when, where, and by whom was it done?

A. Dovetailing of pieces of metal on the inside of the handle opposite the fulcrum hole and the making of the gearing; that was the first part of 1879, at the shop in Hudson street; work was done by Moses C. Johnson.

380 X Q. Were you present when he did this, from the beginning to the end?

A. Not continuously.

381 X Q. Will you explain your last answer?

275 A. I was not by him all the time he was doing the work, but saw him several times working on it, and he showed it to me at its completion.

382 X Q. What was the shape and material of these bits of metal which you say were dovetailed, and how was the dovetailing done?

A. It was a small piece of steel. It was a square piece of steel with a dovetail fitted into the inside of the handle. It was brazed in, to the best of my recollection.

383 X Q. Did you see this done?

A. I saw Mr. Johnson fitting the dovetail in.

384 X Q. Was any one near him? Give names.

A. Don't remember any one being about when that was done.

385 X Q. What actual thing did you see Johnson do; how did he do it?

A. I saw him fitting the dovetail with a file.

386 X Q. Did you show Johnson the sketch made, as you state, by Judge (Defendants' Exhibit No. 9, lead-pencil sketch)?

A. Not to my recollection.

387 X Q. Why did you not show that sketch to Mr. Johnson?

A. I suppose because I thought it was unnecessary.

388 X Q. Did you not think it would help?

A. I was not in the habit of giving directions personally to the workmen. Sketch was shown to Mr. Adams and I directed him to

have Mr. Johnson do the work. I simply looked upon the work afterwards as it progressed.

389 X Q. Why did you not give that sketch to Mr. Adams?

A. In the first place, it was not mine to give. It never came into my possession. I never took it from Mr. Judge's office. Mr. Adams was in Mr. Judge's office afterwards—about the latter part of April, and a similar sketch was shown him by me. Mr. Judge made that, too, at my request. I do not know what became of it.

276 Counsel for complainant objects to all of the foregoing answer after the word "possession," in the second line, as not being in response to the question.

Examination adjourned to Monday, April 21, 1884, at same time and place.

NEW YORK, *April* 21, 1884—1 p. m.

Parties met pursuant to adjournment.

Present: Same counsel.

Cross-examination of Mr. HALL continued:

390 X Q. Referring to X Q. 345, I now ask you to look at Defendants' Exhibit Hall's Pin-and-Hole Gearing, J. E. B., Sp. Ex'r, Feb'y 23, 1884, and state when, where, and at whose direction it was made.

A. It was made in 1884, at the company's works in Brooklyn, by my direction, on the request of Mr. Broadnax.

391 X Q. Look at Defendants' Exhibit Hall's No. 1 Nipper, J. E. B., Sp. Ex'r, March 7, 1884, and state when, where, and at whose direction it was made.

A. It was made in 1884, at the company's works in Brooklyn; it was taken from the general stock.

392 X Q. Look at Defendants' Exhibit Hall's No. 2 Nipper, J. E. B., Sp. Ex'r, March 7, 1884, and state when, where, and at whose direction it was made.

A. It was made in 1884, at the company's works in Brooklyn; it was taken from the general stock.

393 X Q. Look at Defendants' Exhibit Hall's No. 6 Nipper, J. E. B., Sp. Ex'r, March 7, 1884, and state when, where, and at whose direction it was made.

A. It was made in 1884, at the company's works in Brooklyn; it was taken from the general stock.

394 X Q. I read to you Q. 74 and the answer thereto. (Counsel reads:) Can you state the words you used in making your suggestion?

277 A. Probably not the exact words; I simply asked him to do it.

395 X Q. What did you ask him to do?

A. I asked him to make a drawing showing a connection between the handles, consisting of one pin in one handle and two pins in the other. That is as near the exact words as I can recall.

396 X Q. Who were present at the time?

A. Mr. J. F. Oliver, Mr. Judge, and myself. There may have been others, but I do not remember them.

397 X Q. Did he make that sketch—Defendants' Exhibit No. 9, lead-pencil sketch—then and there?

A. He did.

398 X Q. When did you make the sketch in the lower corner?

A. About the same time. I think it was a few minutes to his making the other one.

399 X Q. Who made the other pencil marks on that sketch, and when and where were they made?

A. I do not know.

400 X Q. Were they there when you made your sketch?

A. Don't remember.

401 X Q. If you made your sketch on that paper before Mr. Judge made his, why did you make it in the corner of the sheet?

A. I had no particular reason for so doing. I recollect that I was sitting at the corner or end of Mr. Judge's desk, and it is possible that he had the paper before him, and I just marked on one corner of it.

402 X Q. Are you positive that you made your sketch first?

A. I feel quite sure that I did.

403 X Q. I read you Q. 75 and your answer. (Counsel reads:) Who made the model you refer to, and how long was it in the possession of the company, and what became of it?

278 A. Moses C. Johnson; was in the possession of the company a little over a year. I do not know what became of it. I searched for it but could find no trace of it.

404 X Q. Where and when did you search for it?

A. I searched for it in the shop in Milford some time about February, 1880; might have been a little later than February.

405 X Q. At whose suggestion and why did you search for it?

A. No one suggested it to me. It was about the time we moved to Milford, and I was gathering the models and gauges for the purpose of putting them in their proper places in the shop. I missed it at that time.

406 X Q. How long did you continue the search?

A. Probably took me a couple of days to look over the shop. I can't tell exactly.

407 X Q. Who had charge of the models and gauges you speak of at that time?

A. Moses C. Johnson was the foreman in charge at that time.

408 X Q. Did you ask him for this model?

A. I do not, that I remember.

409 X Q. How long did Moses C. Johnson remain in the employ of the company after you went to Milford?

A. For only a few weeks as foreman; after an interval, and after his discharge as foreman, he was employed a short time as a workman. I think he was finally discharged June, 1880.

410 X Q. When were the templates referred to in question 76 made?

A. They were made in May, 1879.

411 X Q. By whom and from what?

A. By Mr. Whittlesey, and from the Jencks model nipper.

412 X Q. In question 87, which I read to you, reference is made to a "duplicate model." What became of that and who made it? (Counsel reads question.)

279

A. The duplicate model consisted of a single handle and a single jaw; they were given to the Colt's Arms Company about May, 1879. I suppose they have them yet. Moses C. Johnson made the duplicates.

413 X Q. I read to you question 98 and your answer. (Counsel reads:) Will you please state when, where, and in what words you made your alleged directions.

A. As near as I can recollect, it was in the month of November, 1878, in the shop of Jencks & Co., in Centre street, New York. The words, as near as I can recollect, were that I wanted the spring put in loose. I remember that the stock in the forgings I gave Mr. Johnson were a little scant, so that the lip projected but a trifle over the thickness of the spring. I furnished all the parts for the nipper, including the spring.

414 X Q. What became of these parts?

A. He used them in making the nipper.

415 X Q. Was there any lip over the spring in the jaws you gave him?

A. It was a rough forging I gave him; the lip had not been cut in it.

416 X Q. Had not the spring in your nippers up to that time been fastened with a brass teat, or block, and screw, holding into the side plates?

A. Some of them had; the brass block was a simple experiment.

417 X Q. When was that experiment made, and when abandoned, if it was?

A. About October, 1878; it was tried and abandoned about the same time.

418 X Q. I read to you question 106 and your answer thereto. (Counsel reads): When, where, and by whom was the nipper mentioned made?

280

A. Was made about January, 1879, in the shop in Hudson street, New York. I think I made it, mainly.

419 X Q. State what work you did on it.

A. Filing it; drilling the holes in the plates, jaws, and handles. I did not make the screws.

420 X Q. Where did you drill the holes in the jaws, and for what purpose were they drilled?

A. Where the fulcrum is.

421 X Q. Where in the plates?

A. In the four corners of the plates, a hole in each.

422 X Q. Where in the handles, how many, and how deep?

A. The fulcrum holes; entirely through the handles.

423 X Q. Were there any other holes drilled in this nipper; by whom were they drilled; how deep, and for what purpose?

A. There were holes drilled in the handles to receive pins which

form the gearing; they were round pins of steel; presumably two holes in one handle and one in the other. I think Mr. Adams drilled them. I cannot say how deep.

424 X Q. What has become of this nipper?

A. It is Defendants' Exhibit No. 20 in this case.

425 X Q. Was this made subsequently to the Jencks model?

A. I should say about the same time.

426 X Q. Which person of the Interchangeable Tool Company first employed Mr. Broadnax in regard to this matter of contesting the claim of Moses C. Johnson to the invention of the improvements shown in the patent in suit?

A. I did.

427 X Q. And when did you first employ him?

A. Cannot recollect the date at present; can do so by reference to memorandum; will produce it at the next meeting.

281 428 X Q. Did you first speak to Mr. Broadnax about this matter or did Mr. Judge?

A. My recollection is that I was in Milford at the time. Mr. Judge was my private attorney. I wrote to him requesting him to call upon Mr. Broadnax and retain his services in the matter for me. I can't recall dates.

429 X Q. Had you known Mr. Broadnax personally before you wrote Mr. Judge, as you state?

A. No.

430 X Q. How, therefore, did you come to instruct Mr. Judge to retain Mr. Broadnax?

Question objected to as not cross-examination. If counsel insists upon this course of examination appertaining to matters outside of the examination-in-chief and having reference to no matters in controversy he makes the witness his own, and unless he does make the witness his own or show upon the record that his questions are proper as cross-examination counsel for defendants will instruct the witness not to answer and submit to the court whether the witness must answer.

Complainant's counsel replies that he is cross-examining the chief defendant, and that he is not called upon to inform such witness of the object of his questions; further, that the employment of Mr. Broadnax and his acts have been testified to in chief.

Counsel for defendants denies that he asked the witness any questions about his retaining Mr. Broadnax or his being retained, and doesn't recollect that he testified to anything about the retaining of Mr. Broadnax as his attorney, and that if the witness has testified in any way on that point it is entirely incidental, and that if he has it was an easy matter to make it appear by reference to the

282 record, which complainant's counsel has not done.

Complainant's counsel calls the magistrate's attention to the existence of Defendants' Exhibit Hall Application Prepared by Broadnax.

Counsel for defendants responds that the exhibit referred to by complainant's counsel did not grow out of the interference case,

but was prepared before the interference was declared, and that he did not understand the question of complainant's counsel to have reference to that exhibit, and that his retention to prepare that application had nothing to do with that interference, and that he has no objections to complainant's counsel asking any questions he pleases about the exhibit in question.

A. From his well-known reputation as a lawyer, and because I had frequently heard of him.

431 X Q. Have you a letter-press copy of that letter, or can you give me its date?

A. I have no such copy and cannot give the date.

432 X Q. Was Hall's application prepared by Broadnax prepared before or after you wrote Mr. Judge to retain Mr. Broadnax?

Question objected to because it is indefinite and does not state to which retention it refers—whether it refers to Mr Broadnax's retention to prepare that application or as counsel in the interference case.

A. The exhibit was prepared after the letter spoken of was written to Mr. Judge.

433 X Q. Had you not before that, and before writing to *the* Judge, known that Moses C. Johnson claimed to be the inventor of these improvements as shown in the patent in suit?

283 A. No.

434 X Q. Was this exhibit prepared before or after the conversation testified to by you with Mr. Thompson at Milford in his office?

A. Before.

435 X Q. Had not Mr. Thompson informed you, or had not someone else informed you, that Mr. Johnson had applied for a patent on Johnson's invention before this exhibit was prepared?

A. Neither he nor any one else ever had.

436 X Q. Did your witness, Mr. Judge, know when this exhibit was prepared?

A. Yes.

437 X Q. If, then, he has sworn that it was after the application by Moses C. Johnson for a patent that this application was caused to be prepared, would you say he was correct or not?

A. I should say he was evidently mistaken. I can hardly believe he has so testified.

Adjourned until April 22, 1884, at same time and place.

NEW YORK, *April* 22, 1884.—1 p. m.

Parties meet pursuant to adjournment.

Present: same counsel, same witness.

Cross-examination of Mr. THOMAS G. HALL continued:

438 X Q. Have you with you the memoranda and letters called for yesterday, and will you produce them?

A. I have not. I have not found anything bearing upon the subject yet.

439 X Q. Have you looked for them, and where have you looked?

A. I have, at my residence; nowhere else.

440 X Q. Referring to the specification and claim executed and sworn to by you at Milford, I ask you were you present
284 when they were drawn up, and how did they come to you to be sworn to?

A. I was not present when they were drawn up. They were brought to Milford by Mr. Judge and delivered to me.

441 X Q. Did you give written instructions for drawing this specification and claim? Where did you give them, and when?

A. My recollection is that I did. I was at Milford at the time. It was the latter part of June or the first of July, 1880.

442 X Q. Have you any copy of those instructions?

A. I have not as yet been able to find them.

443 X Q. Have you searched and caused search to be made, and when and where?

A. I have searched myself at my residence last night.

444 X Q. Have you caused any search to be made at Mr. Broadnax's office?

A. I have not.

445 X Q. To whom did you send those written instructions?

A. Mr. William Q. Judge.

446 X Q. To whom did you give the specification and claim when sworn to?

A. To William Q. Judge.

447 X Q. Do you know what he did with them?

A. Of my own knowledge, I don't know.

448 X Q. Do you know positively when you gave those papers to Mr. Judge?

A. I do; about the last part of July, 1880.

449 X Q. You have spoken about many friendly visits you made to Mr. Thompson's office in Milford. When did he first tell you that your representations concerning the condition of the Interchangeable Tool Company were erroneous?

A. During the summer of 1880—probably about the middle.

450 X Q. Was it not in the spring of 1880?

A. No; I think not.

285 451 X Q. Was it not before the middle of the summer?

A. I think not.

452 X Q. When did he attach the machinery at Milford.

A. Speaking from memory, I think it was in August, 1880.

453 X Q. Before his attaching, did you have any interviews with him relative to taking back the stock transferred to him and surrendering the machinery, and state what occurred, as nearly as you can, and when?

A. I think, during the latter part of July, 1880, he made a demand that I should return the machinery purchased of him and take back the stock which was given in payment. He stated at the time that I had misrepresented the value of the stock; that we

were not making any money and could pay no dividends, as the goods were costing more to manufacture than they realized when sold, and that we would have to increase the price of the goods or we could not get along. He further said that the goods were costing us seventy-five to eighty cents apiece, and gave me a memorandum in writing, which he said proved it. I declined to accede to his demand.

454 X Q. Are you positive of the date, to wit, latter part of July, 1880?

A. To the best of my recollection, that was the time.

455 X Q. Had you not said to Mr. Thompson before this that Mr. Johnson claimed the improvements shown in the patent in suit?

A. I had not.

456 X Q. Had you not reason to believe that others had?

A. No.

457 X Q. Was nothing said to you by Mr. Thompson at any time, at or before August, 1880, that these improvements were not contained in the patent (November 5, 1878) under which you have testified you were making these nippers?

286 A. I had a conversation with Mr. Thompson on one occasion, but it was after August, 1880. I had none prior to that.

458 X Q. How long before August, 1880, did you learn that M. C. Johnson had applied for the patent in this suit, and from whom and by what means?

A. Never heard it before that date; the first I heard of it was from Mr. Henry G. Thompson, in the latter part of August, 1880.

459 X Q. When and where and in whose possession did you first see Defendants' Exhibit No. 1, Johnson's drawing, in this suit?

A. I saw it in the possession of the Interchangeable Tool Company about July, 1879, in the company's shop in Hudson street; it was made by Mr. M. C. Johnson; it was done at his house in overtime. It remained in the company's possession until it was put in evidence in the interference case.

460 X Q. When, where, and in whose possession did you first see Defendants' Exhibit No. 2, drawing of Kennedy nipper?

A. I can hardly answer that question. I think when it was first put in evidence in the interference case.

461 X Q. Had you ever seen a copy of that drawing before that?

A. I had seen one similar to it.

462 X Q. Where and when had you seen it?

A. I think in Mr. Judge's office; I saw it early in 1879. I may have seen it before that.

463 X Q. What was the occasion of your seeing it in Mr. Judge's office?

A. I think Mr. Curtis, of whom I have heretofore spoken, had a circular similar to it—at least a circular with a cut similar.

464 X Q. How did he come to show it to you?

A. My recollection is, he said he thought it would be a good thing for us to buy, as we might run against it in our business. He said he could get it for us if we wanted it.

287 465 X Q. At what date was this?

A. That was late in the winter or very early in the spring of 1879. I think the former.

466 X Q. Are you positive of this date?

A. Yes; I am quite sure.

467 X Q. Was it before or after the making of Judge's sketch?

A. I think it was before.

468 X Q. Can't you be more positive in your answer?

A. Well, I am quite sure it was before. I had seen the device before Mr. Curtis had shown it to me.

469 X Q. Where, when, and in whose possession did you first see Defendants' Exhibit Nipper Handles?

A. I first saw them in the shop in Hudson street, in the first part of 1879, in the possession of the Interchangeable Tool Company.

470 X Q. Who bored the hole in the inner side of the one marked 3?

A. I couldn't say; it is a prick-punch mark to press out the metal toward the toe.

471 X Q. Who put in the pins and when were they put in?

A. Mr. Adams, I believe; the latter part of April, 1879.

472 X Q. Who cut off the pins, and why?

A. I think they were broken off in May, 1879. My recollection of the reason is that so many pins were considered superfluous. I had told Mr. Adams to put two pins in one handle and one in the other; for some reason unknown to me, he had put three pins in one handle and two in the other. I don't remember at this date whether the pins were broken by accident or design. I did not see him do any of the work.

473 X Q. When, where, and in whose possession did you first see Defendants' Exhibit No. 4, nipper jaws?

A. At the Interchangeable Tool Company's shop, in Hudson street, in January, 1879.

474 X Q. How recently have you made nippers with similar jaws?

288 A. We only made a few samples; have not made any since February, 1879, with jaws just like those.

475 X Q. Did any of those samples have interlocking arrangements in the handles?

A. There were only two nippers made, and one of them was used for the experiment shown in Defendants' Exhibit Nipper Handles. Since this experiment a portion of the parts were in my individual possession, and the other portion was in the possession of the company until used as an exhibit in the interference case. One handle was in my possession. Defendants' Exhibit No. 5, side plates, are another portion. The large central hole is for the purpose of letting a screw through, to hold what was called the brass block. The lower small central hole was made to hold a pin which held the spring. The other one, just above, was to test the thread of a screw holding the brass block.

476 X Q. Look at Defendants' Exhibit No. 4, nipper jaws, and tell me who bored the two holes in the inner side of each jaw, and what purpose was intended.

A. I drilled the holes about January, 1879, for the purpose of inserting a pin which closed the opening between the jaws, and at the same time held the spring in place. It had also a tendency to produce uniformity in motion.

477 X Q. Look at Defendants' Exhibit No. 7, Hall's patent of November 5, 1878, and state who made the model used in the application for that patent, when, and where.

A. I did. I think I made that model in 1876, at my residence, I think, in Harlem.

478 X Q. Did you in any way change the model between 1876 and August 30, 1878?

A. I think not.

479 X Q. This is the patent, is it not, under which you manufactured nippers in 1879 and subsequently?

A. One of the patents.

480 X Q. Do you take from this patent the stamp you put
289 on the nippers manufactured by the Interchangeable Tool Company?

A. Not all of them; on all except the No. 6 nipper.

481 X Q. Look at Defendants' Exhibit No. 8, old nipper, and say when and where you first saw it, by whom it was made, and where it has been since.

A. Latter part of 1878 or early part of 1879, at shop in Hudson street. I made it either partially or wholly—I think partially. It was in the possession of the company until put in evidence for the interference case. It contains the brass block for holding the spring, V-shaped spring, screw for holding the same, two holes in each jaw made for the insertion of pins for holding the spring and other purposes, as mentioned in connection with the Exhibit No. 4, nipper jaws; the handles have no interlocking arrangement.

482 X Q. Why, at the time you applied for the French patent, Defendants' Exhibit Hall's French Patent, did you not apply for a patent in the United States?

A. I don't recall any particular reason at this time.

483 X Q. Do you know what that patent cost to obtain?

A. Don't remember the exact amount; I think something like $100.

484 X Q. Did you write out the specification in that patent and swear to the claim of invention in the application therefor?

A. I did not write the specification, but I believe I swore to the claim and papers.

485 X Q. Look at Defendants' Exhibit No. 20 and state when you first saw it, by what workman it was made, and where.

A. First saw it about January, 1879, at the company's shop in Hudson street; made wholly or partially by myself.

486 X Q. At whose request and for what purpose?

A. At my own volition and as a sample nipper. The pins forming the gearing between the handles, I think, Mr. Adams put in.

290 487 X Q. State what portions you made and then what portions others made.

A. I made it wholly, or with the assistance of a filer and a tem-

perer, with the exception noted of the gearing. The nipper was otherwise complete when the pins were inserted.

488 X Q. When were those pins inserted?

A. During the summer of 1879; I couldn't be positive of the month. The nipper was then given to Messrs. Peter A. Brasse & Co., from whom I procured it to put in evidence in the interference case.

489 X Q. Was this made for an exhibition and for what exhibition?

A. It was given to them for exhibition, I think, at the American Institute fair.

490 X Q. In your answer to X Q. 269 you say Mr. J. F. Oliver and Mr. Henry S. Rogers were present when you spoke to Mr. Thompson about Johnson's claim. Give the date.

A. As near as I can recall, it was some time during the months of August or September, 1880, when Mr. Oliver and Mr. Rogers were present.

Adjourned until April 23, 1884, same time and place.

NEW YORK, *April 23d*, 1884—1 p. m.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Cross-examination of THOMAS G. HALL continued:

491 X Q. Did you not call Charles F. Frasse as a witness in the interference case to testify as to defendants' No. 20; and, if you did, and he swore that that exhibit was delivered to him in September, 1879, would you not adopt that as the date of delivery?

A. I did call Mr. Frasse as a witness, but my own recollection is that he got the nipper a short time prior to September, 1879.

291 492 X Q. Did you deliver it to his firm yourself?

A. I think not. I saw it in his window a week or two, I think, after it was delivered to him.

493 X Q. When did you see it in the window?

A. As near as I can recollect, about the latter part of August, 1879.

494 X Q. Are you positive as to this date?

A. Quite positive.

495 X Q. Which of you two—Frasse swearing in 1882 or you now—would be most likely to be correct?

A. I don't think either of us is very far from the mark.

496 X Q. Are your answers as to other dates in this examination as correct as that in relation to this?

A. Some of them are more so. This latter date is not fixed exactly in my mind, but it was about that time.

497 X Q. Will you state what dates you refer to as being fixed in your mind?

A. I can't recall them now without reference to the testimony as taken.

498 X Q. Can't you recall any of these without that reference?

Question objected to as not fair to the witness, because it doesn't refer the witness to any particular date to which he has testified.

A. My answer to that is that if distinct and specific questions as to dates are put me I will answer them, but the question is too general in its nature.

499 X Q. Question repeated.

A. I can if I am allowed to look at the testimony to know what questions to allude to. I can refer to one date, the first day of January, 1877, in which I made my pin-and-hole-gearing experiment about which I have testified; can further refer to the interview when Mr. Thompson told me that he had a patent on the nipper in the latter part of August, 1880.

500 X Q. What did Mr. Thompson say?

292 Question objected to on the ground that witness has already testified as to what Mr. Thompson said on that occasion.

A. Said he had a patent on the nipper, and that he had purchased it to protect the company. I don't remember what else he said.

501 X Q. Did he mention Johnson's name in that connection, and what did he say?

Same objection.

A. I think he said he bought it from Johnson; that's all.

502 X Q. Was any work done in the shop in Hudson street before the employment of J. M. Adams as foreman; and what work, if any?

A. There was; I made some experimental nippers; put in some machinery.

503 X Q. Did any of the nippers made there at that time go into practical use as articles for sale to the public?

A. No.

504 X Q. Did you, after the employment of Adams, act as manager of the mechanical work of the company?

A. No; I had general supervision of the business.

505 X Q. All orders concerning mechanical work were given to Adams, were they not?

A. Generally so, at least. Mr. Adams may have been away at times and orders given to others.

506 X Q. State what times he was absent.

A. Don't recollect what times he was absent.

507 X Q. Do you recollect any time when he was absent?

A. I remember his visiting his family while they lived in Hartford. I think he made several visits to Hartford. I can't specify the dates.

508 X Q. State what orders concerning the mechanical work, if any, you gave during any of these absences.

A. I cannot recall any; have nothing to fix them in my memory.

293 509 X Q. Do you know of your own knowledge that Moses C. Johnson was paid overrates for overwork by the company?

A. I didn't see the money paid, but I saw the item on the pay-roll.

Answer objected to.

510 X Q. Question repeated.

A. I did not see the money paid.

511 X Q. Did you see any money paid him?

A. Yes, I did; I saw his wages handed him.

512 X Q. You mean his regular wages, don't you?

A. I don't know whether it was his regular wages or whether it included his overpay. I did not count the money, and consequently cannot testify.

513 X Q. You have testified that Whittelsey made the templates, Defendants' Exhibit Templates. Did not Moses C. Johnson make a pair of templates for the company?

A. I think he did; but they were not for the same purpose as Defendants' Exhibit Templates.

514 X Q. For what purpose was Johnson's templates made?

A. They were made to conform to the gearing after the Jencks model, after Johnson had dovetailed the pieces onto the handles and made the gear connection. That was done the latter part of April or first of May, 1879. They were made as a gauge for making the milling tools. We probably have them in the factory at the present time; am not sure.

515 X Q. Will you produce these templates (made, as you say, by Johnson) before the magistrate?

A. I will not promise to, as I really do not know that I can do so; I will if I can.

516 X Q. Look at Defendants' Exhibit No. 13, Prescott letter, and state who he was, and if employed by the company, what he did in such employment.

294 A. His name is F. A. Prescott; I heard that he was an attorney; he was employed by the company; I can't recall the dates; he prepared the papers, including the drawing in the interference case, to which I swore; he presented them at the Patent Office.

517 X Q. Did he say anything to you about the contents of the papers and why he made the claim like Johnson's?

A. He read the papers to me and told me that the claim must be like that of Johnson. He also said, upon my asking his reason, that the Department had notified him they must be so.

518 X Q. Was that your only reason for swearing to them in that shape?

A. Only reason I can recall.

519 X Q. What did you furnish Munn & Co. from which to draw your application for the French patent?

A. A sample of the nipper then manufactuced, with all the improvements—No. 2 nipper.

520 X Q. Do you know of any offer of money by Mr. Prescott to Moses C. Johnson?

A. I do not. I have heard something to that effect. I think Mr.

Johnson said something of the kind, but I do not recall the words; knew nothing about it personally.

521 X Q. Did not Mr. Prescott tell you so?

A. Don't remember that he did.

522 X Q. Have you not sworn that he told you so?

A. I don't remember. I remember hearing something about the matter, but am not positive from whom.

523 X Q. What did you hear? State fully.

A. As near as I can remember, it was something about Prescott offering Johnson money; matter is not fresh in my mind. I can't state more fully.

524 X Q. What did he offer the money to Johnson for?

A. I can't remember.

525 X Q. Have you been examined on this subject before, by whom, and when?

A. I don't recollect.

295 526 X Q. Is your memory good?

A. Pretty good, I think; forget some things.

527 X Q. Do you remember whether you answered Prescott's letter or not?

A. Not distinctly, at present. I answered many letters he wrote me.

528 X Q. Have you any of his letters and will you produce what you have, if you have any?

A. I don't know that I have any. I will if I have any.

529 X Q. Referring to cross-question 515, what size of nipper did Johnson make templates for?

A. No. 2.

530 X Q. What parts of the nipper?

A. For the handles—*i. e.*, for the gearing of the handles; not for the jaws.

531 X Q. Are you positive that he didn't make templates for the jaws?

A. Yes.

532 X Q. What parts of what size nipper did Whittelsey make templates?

A. He made the templates for the No. 2 jaws.

533 X Q. Did you see Whittelsey make these?

A. I am not quite sure; but that was his particular branch of work.

534 X Q. Is that your only reason for saying he made them?

A. I saw them on his bench in Hudson street and he was at work upon them.

535 X Q. Were the jaws to be made from these templates to work (assembled) with the handles made from Johnson's templates?

A. Yes.

Cross-examination closed.

Adjourned until April 24, 1884, at same time and place.

296 NEW YORK, *April* 24, 1884—1 o'clock p. m.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Redirect examination of THOMAS G. HALL:

536 R. D. Q. Look at the book now shown you and state if you recognize it as the minute book of the Interchangeable Tool Company from the third of September, 1878, to August 4th, 1881.

Objected to on the ground it appears that Augustus Gustam was secretary of the company, and that any book of minutes of said company to be evidence should have been kept by him; that he is still alive; can be examined and cross-examined as to dates, accuracy, and contents, and that the present witness cannot give the best evidence.

A. I do recognize it as such.

537 R. D. Q. I read to you question and answer 145 of your examination-in-chief.

(Counsel reads:) Please to read from the minute book you have recognized as the minute book of the Interchangeable Tool Company the resolution you there refer to.

Objected to because the resolution (if any) is not in the handwriting of witness nor reduced to writing by him, and has not been *to* so proved as to make evidence.

A. Witness reads:

The date is "October 7, 1879." "On motion of Mr. Harris, it was resolved that the secretary be instructed to apply immediately for a French patent on the Hall nipper, and, as soon as practicable, for the Belgium and Swiss patents."

Answer objected to for the above reasons.

297 538 R. D. Q. Were you president of the Interchangeable Tool Company, and were you present at the time that resolution was passed?

Objected to because the testimony of witness is not competent nor the best evidence on this point.

A. I was, in answer to both questions.

539 R. D. Q. Who was secretary of the company at the time?

A. Augustus Gustam.

540 R. D. Q. Are you acquainted with Augustus Gustam and with his handwriting, and have you frequently seen him write?

Objected to as secondary evidence when the best is attainable.

A. I am acquainted with his handwriting; have seen him write very frequently.

Same objection.

541 R. D. Q. In whose handwriting are the minutes of the meeting at which that resolution was passed, and by whom were they signed?

Same objection.

A. Mr. Gustam.

Same objection.

542 R. D. Q. Who else were present at that meeting besides yourself and Mr. Gustam?

A. Mr. J. F. Oliver, Mr. David L. Harris, Mr. Charles H. Oliver.

543 R. D. Q. Do you know, of your own knowledge, that that resolution was passed on that day?

298 Objected to as giving oral testimony concerning a writing which can be directly proved by Gustam.

A. I do.

544 R. D. Q. By the "Hall nipper," mentioned in the resolution, what nipper is referred to?

Objected to, because there has been no resolution proved, and witness cannot state what Gustam referred to.

A. The nipper we were then manufacturing in quantity and having the handles connected by gearing and the spring held in place in the notch in the jaw.

545 R. D. Q. Please give the date when Mr. Henry G. Thompson became a stockholder in the Interchangeable Tool Company and when he ceased to be stockholder in that company, and what certificates of stock were issued to him and afterwards transferred by him to the company.

Objected to as calling for conclusions of law.

A. He became a stockholder March 31, 1880; he ceased to be a stockholder on April 25, 1881. One certificate, No. 57, for seven shares; one certificate, No. 58, for twenty shares; one certificate, No. 59, for twenty shares; one certificate, No. 60, for twenty shares; in all, sixty-seven shares. He returned all of these certificates on April 25, 1881.

546 R. D. Q. To whom did Mr. Thompson deliver the stock on April 25, 1881?

A. To me, I think, in Judge Stoddard's office (our attorney), in New Haven.

547 R. D. Q. Was that at the time you settled with him and surrendered to him the boiler and engine?

A. It was.

299 548 R. D. Q. And after that did the company continue to rent the engine and boiler of Mr. Thompson; and, if yea, at what rent and down to what time?

A. It did; at the rate of between twenty-five or thirty dollars per month, down to about September, 1881.

549 R. D. Q. Relate what facts and circumstances led to the mak-

ing of an assignment by the company, as you have stated in your cross-examination.

A. About the middle of August, 1880, Col. Isaac T. Rogers put an attachment on the company's property for several thousand dollars; immediately thereafter the company called a meeting of its creditors, and for the protection of the company's creditors the company made an assignment to Mr. William A. Healey, of Hartford, the treasurer of the Pratt & Whitney Company, who were creditors.

550 R. D. Q. Was this attachment before or after the attachment of Mr. Thompson?

A. Before; a couple of weeks, probably, before.

551 R. D. Q. How did the company settle its affairs and resume its business?

A. By a compromise with its creditors at fifty cents on a dollar in unendorsed notes.

552 R. D. Q. Relate the circumstances and transactions that took place between the time of the Rogers attachment and the settlement with the creditors.

Objected to as immaterial.

A. After the Rogers attachment the company carried on business for a short time. When I received notice of the intended attachment of Mr. Thompson I was in expectation of his proceeding at any moment. By the advice of counsel an injunction was procured which would prevent him from removing the engine and boiler, which he attempted to attach by sheriff. The injunction was served upon the sheriff while in the factory, and he was prevented from removing any parts of the engine or appurtenances. It was shortly after this that the meeting of creditors was called. This meeting was attended by Mr. William A. Healy, Mr. F. A. Pratt, Mr. Morrill, I think ex-Lieutenant Gov. Hyde, of Hartford; Mr. J. F. Oliver, Mr. William Q. Judge, and myself. This was the occasion I have referred to in my testimony when I received the first information of Mr. Johnson or Mr. Thompson having any claim upon any invention appertaining to the nipper. The way it came about was that I had made an effort to borrow $9,000 from Mr. Healy to be used in satisfying our creditors and carrying on the business. I had told the gentlemen present of the attempted attachment of Mr. Thompson, and Mr. Healey wanted to know if we would be permitted to run along and use the engine and boiler without further and serious trouble from Mr. Thompson. I told him (Healey), if necessary, we would put in another engine and boiler, but he said, "Better bring Mr. Thompson down-stairs and see what he has got to say about it." Mr. Thompson came down and was somewhat violent in his talk and manner. Mr. Pratt turned around and said: "Mr. Thompson, you've got a claim of some kind on this patent, haven't you?" Mr. Thompson turned to me directly and said: "Yes, Mr. Hall, I have got a claim on that patent" (or invention, I would not say exactly which word he used, but he referred to the nipper). He further said that he bought the patent for the protection of the company. Considerable more talk ensued of an

300

angry nature. After that Mr. Healey failed to qualify as assignee, and wrote a letter to the judge, at Milford, recommending the appointment of Henry S. Rogers as assignee or trustee. Mr. Rogers had purchased in the mean time the claims of a majority of the creditors. Mr. Rogers afterwards, being in possession of the factory and the entire business, proceeded in manufacturing the nippers for a few months, having been appointed trustee by the court. We afterwards made the settlement of fifty cents on the dollar I have referred to; came into possession and resumed business. It was at that resumption that the boiler and engine were leased
301 from Mr. Thompson. This occurred about the same time that the stock was given back to me by Mr. Thompson.

553 R. D. Q. To whom were the nippers sold that were manufactured by Mr. Rogers during the time he was trustee and in the charge of the company's business and assets?

Objected to as immaterial.

A. His accounts, as assignee, show, and Mr. Rogers told me, that he had sold a large number to Mr. Henry G. Thompson.

Answer objected to.

554 R. D. Q. Which, if any, of the certificates of stock to which you testified in a previous answer were given to Mr. Thompson by Mr. Moses Carlisle Johnson? State what information you have on that subject.

Objected to as plainly incompetent and immaterial; the certificates called for and not produced.

A. On the back of certificate No. 58, for twenty shares, the power of attorney was filled out to Moses Carlisle Johnson and signed by Henry G. Thompson, dated July 6, 1880.

555 R. D. Q. At the time you visited J. H. Jencks, in the fall of 1878, as you have stated in your cross-examination, did Mr. Jencks then introduce you to Mr. Moses C. Johnson?

A. He did.

556 R. D. Q. And after that were all your directions given to Moses C. Johnson as to how you wanted the model nipper made from time to time as the work progressed?

Objected to on the ground that no directions have been proved as given to Moses C. Johnson.

302 A. They were.

557 R. D. Q. What directions did you give Mr. Johnson as to the making of that model?

A. I gave him the various parts and told him I wanted it made symmetrical in its proportions; also to make it interchangeable in all its parts, and to make it more powerful by increasing the length of the jaw-levers. I also told him to insert the spring in notches in the jaws as far forward as possible. He said to me that he could only increase the length of the jaw levers by making new jaws or dovetailing pieces on the end for that purpose. He said the latter method

would answer, as no strain would be put upon the jaws, and pieces were dovetailed on the ends of the jaw levers for that purpose. That nipper, when finished, was left untempered.

All of hearsay in the answer objected to.

558 R. D. Q. In the Jencks model nipper, was the spring put in the same as it appears in Defendants' Exhibit No. 20?

A. It was, with the exception that in the Jencks model nipper the notch holding the spring was higher up towards the cutting edge of the jaws; the lips in the Jencks model nipper seemed to be a little bit longer than in this nipper, but not much.

559 R. D. Q. And this Defendants' Exhibit 20 you say you made yourself, all excepting the pins in the handles forming the gearing, as I understand you?

Objected to as repetition.

A. I do.

560 R. D. Q. When?

A. In the early part of January, 1879; just as it appears now, with the exception of the pins in the handles, which were put in by Mr. James M. Adams in the summer of 1879.

303 561 R. D. Q. Was Defendants' Exhibit No. 17 made in the company's dies before they were altered?

A. Yes; it is one of the old jaw forgings.

562 R. D. Q. Have you obtained a reissue of your patent dated November 5, 1878? And, if so, please to give the date and number of the reissue.

Objected to as immaterial.

A. I have; dated February 7, 1882, No. 10028.

Recross-examination of THOMAS G. HALL:

561 R. X Q. Is Defendants' Exhibit No. 17 in the same condition in which it left the forge?

A. It is not.

564 R. X Q. State what changes have been made in it, where, when, and by whom.

A. It has had a hole drilled through it; has been filed on the sides and on the cutting edge; nothing has been done to it on the inner edge where the lip is formed; the throat has been filed a little. I did the filing in Harlem, I think, in the latter part of 1878.

565 R. X Q. Are you positive that no metal has been cut from that forging, save as above stated?

A. That is all, except what was done by the trimming dies; the trimming was done before it came into the possession of the company.

566 R. X Q. Have you any other similar forgings of the date and die of No. 17 which have not been filed and trimmed?

A. We had several thousand in June, 1879, but they were all sold for old scrap.

567 R. X Q. How did this particular one come to be kept?

A. Had it in my trunk at my house from the latter part of 1878 until I produced it in the interference case; never was out of my possession during the interval.

568 R. X Q. Have you never done anything to this No. 17 since the latter part of 1878?

A. I have not.

THOMAS. G. HALL.

Signed and sworn to before me—

J. EDGAR BULL,
Notary Public and Special Examiner.

Adjourned until April 30, 1884, at same time, at Mr. H. Barnard's office.

304 *James F. Oliver's Direct.*

NEW YORK, *May 19th*, 1884—1 p. m.

Parties meet pursuant to agreement.

Present: Same counsel.

JAMES F. OLIVER, a witness produced on behalf of defendants, and being one of the defendants herein, being duly sworn, in answer to interrogatories propounded by Mr. BROADNAX, testified as follows:

1 Q. What is your name, age, residence, and occupation?

A. My name is James F. Oliver; am thirty-one years of age; reside at No. 161 Hall street, Brooklyn, N. Y.; am a broker in petroleum.

2 Q. Are you one of the defendants in this suit?

A. Yes.

3 Q. Are you acquainted with your codefendants in this suit?

A. Yes.

4 Q. State whether you have manufactured on your own account or on the joint account of yourself and codefendants any cutting nippers such as now shown you, substantially, marked "Defendants' Exhibit Hall's No. 2 Nipper."

Objected to as immaterial.

A. Never have.

5 Q. State, if you know, who manufactured such nippers at any time.

A. The Interchangeable Tool Company of New York.

6 Q. State when that company was organized.

A. August, 1878.

7 Q. State whether you are an officer of that company; and, if yea, what officer, and how long you have been such officer.

A. I am a director and stockholder; have been such since
305 the organization of the company. I was treasurer of the company from its organization, or very soon after, until about

February, 1880, and from that time until about January, 1881, I was secretary.

8 Q. Please examine the nipper now shown you and state whether the Interchangeable Tool Company manufactured any nippers like that; and, if so, state how many and when, and whether such nipners, any of them, were put upon the market. (Witness shown Defendants' Exhibit No. 8, old nipper.)

Objected to as immaterial.

A. Several dozens were manufactured in 1878—some in Harlem, some at the Hudson street-shop—but the company never put any of them upon the market to my knowledge.

9 Q. Please to point out the distinguishing differences between this nipper and the nipper marked Defendants' Exhibit Hall's No. 2 Nipper.

Objected to on the ground that witness is not shown to be an expert, and that the question is immaterial.

A. Defendants' Exhibit Hall's No. 2 Nipper, has a gear connection between the handles, and the spring is held in a seat between the jaws. Hall's Exhibit No. 8, old nipper, has no gear connection between the handles, and the spring is held in position by a brass block placed beneath it.

10 Q. What were the first steps taken by the company towards making the gear connections between the two handles of the nipper, and when were such steps taken? State fully what circumstances led to the introduction of the gearing between handles.

Objected to because witness is not shown to be an expert nor to have any personal knowledge of the matter in question, and because the question is immaterial and can only be answered from hearsay.

306 A. About the first of April, 1879, I had a conversation, at the office of William Q. Judge, with Mr. Hall aud Mr. Judge relative to the perfecting of the nipper. The Kennedy nipper was referred to in that conversation, and Mr. Judge and I asked Mr. Hall why we could not use a gear connection between the handles similar to that shown in the Kennedy nipper. Mr. Hall said that he had tried it and thought he could improve upon it. He made a sketch showing a pin-and-hole connection between the handles, and Mr. Judge also made a sketch showing a gear connection between the handles, and we thereupon—all three of us—decided that we must adopt some plan similar to that shown in the drawings there made. Shortly after, or about the 10th of April, 1879, Mr. James M. Adams was employed by the company to take charge of its shop and superintend the perfection of the nipper and the making of tools with which to manufacture it. After he had been in the company's employ two or three days I told him, at the shop in Hudson street, that we wanted him to make a model and to manufacture the nipper with some kind of gear connection between the handles, and that Mr. Hall was the president of the company, and he (Adams) would receive orders from Mr. Hall. About a week later Mr. Johnson

(Moses C.) was employed by the company, at Mr. Adams' request, to assist him in making models, mechanical drawings, and tools. A few days after Mr. Johnson's engagement Mr. Adams showed me a pair of nippers having pins inserted between the handles to form a gear connection, which pins he told me he had put in himself. A model nipper, which had been made for the company by Messrs. Jencks & Co., was then altered so as to have a gear connection between the handles, consisting of one tooth on one side and two on the other. The work of altering this model was done by Mr. Johnson, whom I saw at work upon it a number of times. When completed this model was used as a pattern from which to make all of the special tools for the manufacture of the No. 2 nipper.

307 11 Q. At the time you had this conversation with Mr. Judge and Mr. Hall was the office of Mr. Judge also the office of the Interchangeable Tool Company?

A. Yes.

12 Q. What was the Kennedy nipper, referred to in your answer to Q. 10?

A. It was a cutting nipper, of which I had seen a wood cut showing a gear connection between the handles and a system of compound levers. It had been patented by one Kennedy; at what time I don't know.

13 Q. Please to examine the drawing now shown you, marked Defendants' Exhibit No. 2, drawing Kennedy's nipper, and state if you recognize it as the Kennedy nipper referred to by you in your answer to Q. 10.

Objected to as leading and suggesting answer.

A. I do.

14 Q. In answer to Q. 10 you say that Mr. Hall and Mr. Judge made a sketch showing a gear connection between the handles of the nipper. Please to examine the sketch now shown you, marked Defendants' Exhibit No. 9, lead-pencil sketch, and state if you recognize it as the sketch or sketches referred to by you.

Objected to as immaterial.

A. These are the sketches I have referred to.

15 Q. Which of the sketches did Mr. Hall make himself?

A. Mr. Hall made the one which is here encircled by a red mark in the lower left-hand corner.

16 Q. Were both of these sketches made in your presence, and did you see them made?

A. They were both made in my presence and I saw them made.

308 17 Q. Please to examine Defendants' Exhibit Nipper Handles and state if you recognize them as the handles in which Mr. Adams put the pins, as you have testified in your answer to Q. 10.

A. The handles shown me by Mr. Adams were like these; I cannot swear that these are the same handles.

18 Q. What was the object of putting the pins between the handles of that old nipper?

Objected to, as witness is not an expert.

A. Mr. Adams made it to illustrate the principle upon which the nippers were to be made, and to show to the officers of the company how it would work.

19 Q. Do you mean how the nipper would work with a gearing between the handles?

A. Yes.

20 Q. And was that experimental gearing put in in obedience to the determination reached by Mr. Hall, Mr. Judge, and yourself at the time you had your conversation testified to in answer to Q. 10?

Objected to as argumentative, leading, and calling for an answer which cannot be evidence.

A. Yes. It was the result of instructions given Mr. Adams by myself and other officers of the company to make a gear connection between the handles.

21 Q. When was the nipper made by Jencks & Co. completed and delivered to the Interchangeable Tool Company?

A. It was delivered by Jencks & Co. about January 1st, 1879.

22 Q. How was the spring arranged and held in that nipper?

Objected to, as witness is not an expert.

309 A. It was a V-shaped spring, held in position between the jaws by its own pressure against them.

23 Q. What was there to prevent the spring from working up out of its seat between the jaws?

Same objection.

A. A projection or shoulder at the throat of the jaw.

24 Q. How frequently did you visit the works of the company during the time that these changes were being made in the nipper?

A. Two or three times a week, and remained from one to two hours every time.

25 Q. Did you see Mr. Johnson at work altering the Jencks model for the purpose of making the gear connection between the handles?

A. Yes.

26 Q. In what way did he make the alteration?

A. He dovetailed pieces of metal into the inside of the handles in order to have the necessary stock from which to make the projecting teeth.

27 Q. State, if you know, where that nipper is.

A. I don't know.

28 Q. State, if you know, who made the original Jencks model?

A. Johnson (Moses C.) told me that he made it.

29 Q. After the Jencks model nipper was altered, as you have stated, did the company have new dies made in which to make their forgings?

A. I saw new model handles which were made for the use of the

Colt's Arms Company in altering dies. I did not see the dies altered, but saw a letter from the Colt's Arms Company stating, substantially, that our orders as to alterations had been received and would be acted upon.

30 Q. When was the Jencks model nipper completed as altered by Johnson?

A. I cannot fix the date precisely; I think it was about the middle of May, 1879.

310 31 Q. And do you know of your own knowledge that it was then used by the company as its model nipper, from which all its special tools were made for manufacturing the No. 2 nipper?

A. I saw different parts of it in the hands of the different workmen, who stated to me, in answer to inquiries by myself, that it was being so used.

Objected to as hearsay.

32 Q. During the time these alterations were made upon the Jencks model nipper was Mr. Moses C. Johnson in the employ and in the pay of the Interchangeable Tool Company?

Objected to as immaterial.

A. Yes.

33 Q. When did you first hear that Mr. Johnson claimed to be the inventor of the improved nipper of any part of it?

A. About the end of August or first of September, 1880; it was shortly before the company made its assignment to Mr. Healy.

34 Q. From whom did you first hear that Mr. Johnson claimed to be the inventor of any part of the nipper?

A. From Henry G. Thompson.

35 Q. Who was present when Mr. Thompson made the claim, and where was the claim made that Mr. Johnson was the inventor of the improvements in question?

A. It was at the company's office at Milford, Conn., and there were present Messrs. Pratt and Healy, of Hartford; Mr. Thompson, Mr. Hall, and myself.

36 Q. Did the announcement occasion any surprise to the officers of the Interchangeable Tool Company?

Objected to as immaterial.

A. It surprised me, and Mr. Hall said it surprised him.

311 37 Q. Who was recognized by the officers of the company as the inventor of the improvements on the nipper?

Objected to as immaterial.

A. Mr. Hall.

38 Q. During the time that Mr. Johnson was in the employ of the Interchangeable Tool Company did you hear him or any one in his behalf make any claim to any invention or improvement upon the Hall nipper?

Objected to as immaterial.

A. No.

39 Q. Who, if any one, have you heard claim to be the inventor of the Hall nipper—not only the original nipper, but as improved, and as it appears in Defendants' Exhibit Hall's No. 2 Nipper?

Question objected to as immaterial, while qualified by the words "and as it appears by Defendants' Exhibit Hall's No. 2 Nipper."

A. James M. Adams, when he was discharged in February, 1880, asked me to give him some money (no amount stated) in consideration of his having moved his family down from Hartford and having made the improvements on the nipper. I never heard of any one claiming to have invented the original nipper except Hall. By his original nipper I mean the nipper as patented by Hall November 5, 1878.

40 Q. Who besides Mr. Adams have you heard claim to be the inventor of the improved nipper?

A. Mr. Moses C. Johnson.

41 Q. Did you ever hear Mr. Hall claim to be the inventor of it?

A. Yes.

42 Q. Who did you first hear claim to be the inventor of it?

A. Mr. Hall.

Adjourned until May 20, 1884, at 1 p. m.

312 NEW YORK, *May* 20, 1884—1 p. m.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Examination of Mr. OLIVER continued:

43 Q. Who claimed to be the first inventor of it—I mean both the original and improved nipper?

A. Mr. Thomas G. Hall.

44 Q. Who, if any one, did you hear question that claim during the time Mr. Adams and Mr. Johnson were in the employ of the company?

A. Never heard his claim questioned during that time.

45 Q. How was Mr. Hall regarded by the officers and directors of the company as to the inventorship of the nipper, both original and improved?

Objected to as improper, calling for a conclusion from hearsay.

A. He was regarded as the inventor of the nipper and all of its improvements, he having claimed the improvements before any changes were made.

Move to strike out this answer as hearsay.

46 Q. Who, if any one, did you hear give Mr. Johnson credit for the invention of the improved nipper while he was in the employ of the company?

A. I never heard any one give him credit for it.

47 Q. In what capacity was Mr. Johnson employed by the company?

Objected to as repetition.

A. As a skillful workman.

48 Q. How long was he in the company's employ?

A. About a year.

313 49 Q. How many nippers like Defendants' Exhibit Hall's No 2 Nipper did the company manufacture during the time Mr. Johnson was in its employ?

Objected to as immaterial.

A. About thirty thousand (30,000).

50 Q. Was it before or after Mr. Johnson went in the employ of the company that Mr. Hall and the company decided to put the gearing between the handles of the nipper and directed Mr. Adams to do it or have it done.

Objected to on the ground of utter absence of proof of any such decision or instruction or direction.

A. It was before the employment of Mr. Johnson.

51 Q. How long before?

Same objection.

A. A week, more or less.

52 Q. You say that the spring in the Jencks model nipper was prevented from riding up by a shoulder or projection over its upper end at the throat of the jaw. How far did the shoulder in that nipper project over the ends of the spring?

Objected to on the ground that witness has not testified as counsel states, and that the question instructs and leads the witness.

A. I can't give you the measurement of it, but it was just enough to cover the thickness of the spring; it was a very slight projection.

53 Q. Was the projection as long as the metal forming the spring was thick?

A. It was.

54 Q. How did the shoulder in that nipper differ, if at all, from the corresponding shoulder in Defendants' Exhibit Hall's No. 2 Nipper?

Objected to, as witness is not an expert.

314 A. It was shorter.

55 Q. What, if any, determination or discussion was reached or had among the officers of the company as to the necessity or desirability of making this shoulder or projection long enough to come together when the nipper was closed?

Objected to as improper, irrelevant, and immaterial.

A. There was no such discussion or determination, to my knowledge.

56 Q. What, if any, importance did or does the company attach to that feature of the nipper?

Same objection.

A. No importance is attached to it, except that it has been regarded as a defect.

Move to strike out the answer.

57 Q. How was it regarded as a defect?

Same objection.

A. It was the cause of objections to the nipper by the trade for the reason that when a wire was introduced between the jaws for the purpose of cutting it, if the end of the wire rested against the shoulders it formed a post between the shoulders and the cutting edges, which caused the edges, when pressed together, to be forced upward and broken.

58 Q. Do you mean that the long projections over the ends of the spring act like a wedge against the end of the wire and causes the cutting edges of the nipper to break?

Objected to as immaterial and instructing the witness.

A. That is what I mean.

315 59 Q. You say, in answer to Q. 10, that Mr. Judge made one of the sketches on Defendants' Exhibit No. 9, lead-pencil sketch; at whose request did Mr. Judge make that sketch?

A. Mr. Hall asked Mr. Judge to make a sketch, as Judge could draw easily and rapidly and Hall did so with difficulty.

60 Q. You have said that a model nipper handle was made to go to the Colt's Arm Company by which to make the new dies. What, if anything, was done towards making a model by which to make new dies for the jaws of the nipper?

A. A new jaw model was made, which was shown to me by Mr. Johnson.

61 Q. From which to make the new dies?

Objected to as instructing witness.

A. From which to make the necessary alterations in the dies.

62 Q. How did the forgings made in the new dies differ from those made in the old ones?

Objected to on the ground that witness is not an expert.

In answer to objections of complainant's counsel that the witness is not an expert, defendants' counsel states that he has not asked the witness for his opinion about anything; that he has not produced him and has not examined him as an expert, but purely upon questions of fact.

Complainant's counsel replies that witness has been examined before on the subject of this case and is persistently led by defendants' counsel now.

A. The shank of the new jaw forging was longer, the head
316 narrower, and there was a projection on the inside from which to make the shoulder for holding the spring.

63 Q. What, if any, conversation did you have with Mr. Adams about patenting the nipper as improved?

Objected to as improper.

A. I suggested to him on one occasion the propriety of our getting a patent upon the improvement. He replied that he would advise having the whole thing patented over again. This was about the beginning of July, 1879.

Move to strike out this answer.

64 Q. At that time did Mr. Adams make any claim to the improvements, either for himself or for Mr. Johnson?

Objected to as improper and immaterial.

A. He made none, to my knowledge.

65 Q. What were Mr. Johnson's habits—I mean were they temperate or intemperate?

Objected to as irrelevant and immaterial.

A. He was a man of intemperate habits.

66 Q. Why did he leave the employ of the company?

Same objection.

A. He was discharged for drunkenness and neglect of his duty.

67 Q. Who, if any one, urged his dismissal?

Same objection.

A. Mr. Hall, Mr. Rogers (who was then treasurer), and Mr. Henry G. Thompson.

68 Q. For the reasons which you have stated?

Same objection and leading.

317 A. Because he was unreliable.

69 Q. Why did Mr. Adams leave the employ of the company?

Same objection.

A. He was discharged because the work of manufacture under his supervision was not satisfactory, and he was declared by Mr. Johnson and Gustam to be incompetent as a foreman.

Move to strike out the answer.

70 Q. What were the relations between Mr. Gustam and Mr. Johnson?

Same objection.

A. They were of an intimate and friendly character.

71 Q. What was Mr. Gustam's habits as to temperance?

Same objection.

A. Very uncertain character. He was frequently intoxicated.

Same motion.

72 Q. What was Mr. Gustam's reputation for truth and integrity?

Same objection, and also because this course of examination is scandalous concerning a man who has not been called by complainant and was an officer of the Interchangeable Tool Company.

A. I didn't know at the time, but I have since learned that his reputation for truth and integrity was bad.

Move to strike out.

318 73 Q. Do you mean by your last answer that you have ascertained since 1879 that Mr. Gustam's reputation for truth and veracity and integrity was bad?

Same objection, and also that the question is leading and instructing the witness.

A. That is what I mean.

74 Q. When did Mr. Gustam cease to be an officer of the company, and why did he cease to be such officer?

Same objection.

A. It was some time in the winter 1880–'81, and because the company had lost all confidence in him.

Move to strike out after "81."

75 Q. What were the relations between Gustam and Mr. Henry G. Thompson?

Same objection, and also because there are no relations proved.

A. They appeared to be intimate and friendly. Mr. Thompson, to my knowledge, loaned Mr. Gustman some money on one occasion. Mr. Gustam told me of visits to Mr. Thompson's house, and he was in Mr. Thompson's office at the time that the officers came to the factory at Milford to replevy the company's engine and boiler upon the suit of Mr. Thompson.

Move to strike out the whole of this answer.

76 Q. What was the relation between Mr. Johnson and Mr. Henry G. Thompson before and after Mr. Johnson's dismissal?

Same objection.

319 A. I know nothing of them; I can think of nothing at the moment.

77 Q. Please to examine the book now shown you and state what it is.

Objected to as irrelevant and immaterial.

A. It is the minute book of the Interchangeable Tool Company?

A. The shank of the new jaw forging was longer, the head
316 narrower, and there was a projection on the inside from which to make the shoulder for holding the spring.

63 Q. What, if any, conversation did you have with Mr. Adams about patenting the nipper as improved?

Objected to as improper.

A. I suggested to him on one occasion the propriety of our getting a patent upon the improvement. He replied that he would advise having the whole thing patented over again. This was about the beginning of July, 1879.

Move to strike out this answer.

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Objected to as irrelevant and immaterial.

A. He was a man of intemperate habits.

66 Q. Why did he leave the employ of the company?

Same objection.

A. He was discharged for drunkenness and neglect of his duty.

67 Q. Who, if any one, urged his dismissal?

Same objection.

A. Mr. Hall, Mr. Rogers (who was then treasurer), and Mr. Henry G. Thompson.

68 Q. For the reasons which you have stated?

Same objection and leading.

317 A. Because he was unreliable.

69 Q. Why did Mr. Adams leave the employ of the company?

Same objection.

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Same objection.

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Same objection.

A. Very uncertain character. He was frequently intoxicated.

Same motion.

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Same objection, and also because this course of examination is scandalous concerning a man who has not been called by complainant and was an officer of the Interchangeable Tool Company.

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Move to strike out.

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Same objection, and also that the question is leading and instructing the witness.

A. That is what I mean.

74 Q. When did Mr. Gustam cease to be an officer of the company, and why did he cease to be such officer?

Same objection.

A. It was some time in the winter 1880–'81, and because the company had lost all confidence in him.

Move to strike out after "81."

75 Q. What were the relations between Gustam and Mr. Henry G. Thompson?

Same objection, and also because there are no relations proved.

A. They appeared to be intimate and friendly. Mr. Thompson, to my knowledge, loaned Mr. Gustman some money on one occasion. Mr. Gustam told me of visits to Mr. Thompson's house, and he was in Mr. Thompson's office at the time that the officers came to the factory at Milford to replevy the company's engine and boiler upon the suit of Mr. Thompson.

Move to strike out the whole of this answer.

76 Q. What was the relation between Mr. Johnson and Mr. Henry G. Thompson before and after Mr. Johnson's dismissal?

Same objection.

319 A. I know nothing of them; I can think of nothing at the moment.

77 Q. Please to examine the book now shown you and state what it is.

Objected to as irrelevant and immaterial.

A. It is the minute book of the Interchangeable Tool Company?

78 Q. Please to read any resolution you may find in that book directing a patent to be applied for in France for the Hall nipper.

Objected to because the book is not shown to have been kept by the witness, nor any such resolution, if any, to have been entered by him in his handwriting at the time, and because it is a mere subterfuge and a continuation of the preceding objectionable course of examination in order to avoid calling the proper witness.

A. Under date of October 7, 1879, is recorded the following resolution:

"On motion of Mr. Harris, it was resolved that the secretary be instructed to apply immediately for a French patent on the Hall nipper, and as soon as practicable for the Belgian and Swiss patents."

Move to strike out the answer.

79 Q. Were you present at the time that resolution was passed?

Objected to as calling for secondary evidence from a defendant, it not having been shown that Mr. Gustam cannot be produced.

A. I was.

320 80 Q. Do you know of your own knowledge that it was passed?

Same objection.

A. I do.

81 Q. What nipper was the secretary directed to apply for a patent for by that resolution?

Same objection, and, further, the resolution must speak for itself.

A. The nipper that the company was then making and selling, which was like Defendants' Exhibit No. 2 Nipper.

82 Q. At the time that resolution was passed did you know or did any of your associates know, so far as you were informed, that Mr. Johnson or Mr. Adams, or any one else besides Mr. Hall, claimed to be the inventor of the nipper or any part of it?

Same objection as to the reference to the resolution (so called); also to the calling for hearsay; also as immaterial.

A. I knew of no such claim, nor did any of my associates, to my knowledge.

83 Q. In whose handwriting is the resolution you have read from the minute book?

A. It is in the handwriting and over the signature of A. Gustam.

84 Q. Who succeeded Mr. Gustam as secretary of the Interchangeable Tool Company?

Objected to as immaterial.

A. I did.

85 Q. And did you keep this book as secretary of the company?

A. I did.

321 Counsel for defendants does not put the book in evidence for the reason that he does not wish it to go out of the possession of the company, but here and now submits the book to the inspection of complainant's counsel in the presence of the officer and undertakes to have it present in court on the hearing of this cause, and requests the examiner to mark the same for identification. (Examiner does as requested.)

Counsel for complainant replies that he does not know how this book was kept, whether accurately or not, and cannot permit any part thereof to be produced, read, or referred to in evidence or elsewhere without due proof thereof.

86 Q. I place in your hands Johnson's Exhibit No. C in the interference case; state, if you recollect, when you first saw that exhibit.

A. I first saw this when I was examined in rebuttal in the interference case.

Counsel for complainant states that, being momentarily called away, witness refreshed his memory by conversation with defendants' counsel before answering.

87 Q. Did you ever see that model at the works of the Interchangeable Tool Company?

Objected to as immaterial.

A. I never did.

88 Q. I now place in your hands Johnson's Exhibit D in the interference case; state, if you recollect, when you first saw that exhibit.

Objected to as immaterial.

322 A. I remember seeing this at my examination in the interference case, but may have seen it before at the shop of the company in Hudson street, as I saw several there that looked like it.

Direct examination closed.

Cross-examination of witness by Mr. BARNARD:

89 X Q. What was your business in 1878 and 1879?

A. I was a teller in a bank—National City Bank of Brooklyn; was there during the whole of those years.

90 X Q. At what time of the day did you go to the bank and at what time did you leave?

A. I went at 9 a. m. and left about 4 p. m.

91 X Q. Where is that bank's banking office?

A. At the City Hall square, Brooklyn.

92 X Q. Where was the shop of the Interchangeable Tool Company in 1878?

A. At 125th street, New York—in Harlem.

93 X Q. How long did it take in 1878 to go from City Hall square, Brooklyn, to the shop of the tool company in Harlem?

A. About an hour—an hour and ten minutes.

94 X Q. By what conveyance did you ever make that trip in an hour and ten minutes? State the route taken in 1877.

A. I never timed it to a minute, or very nearly at all. From the bank to Fulton ferry in a horse-car; thence to New York by Fulton ferry; from the dock next the—to Harlem by the Harlem steamboat, landing at Harlem bridge. The shop was one block from the bridge.

95 X Q. At what street is the New York end of the bridge?

A. Third avenue; I think it is 125th street; I don't know exactly; don't testify to these streets within one or two streets.

96 X Q. Between what avenues was the shop of this company in Harlem?

A. Between Second and Third avenues; I think it was near Third avenue.

323 97 X Q. Did the company own the building; or, if not, who owned the building, and what part did they occupy of it?

A. I don't know who owned the building; the company occupied a small part of it; there was but one floor—a mere shanty.

98 X Q. How long and by what route did you take to go to the shop in Hudson street?

A. It took about three-quarters of an hour. From the bank to Fulton ferry by way of Fulton street, New York; from there went either by stage or foot to Broadway and Thomas street; thence to factory at foot of Thomas street, in Hudson.

99 X Q. Did you ever go to the shop in the morning?

A. No.

100 X Q. What were the hours of work at the shop?

A. In Harlem, from 7 a. m. until 6 p. m.; in Hudson street the regular hours were from 7 a. m. until 5.30 p. m., but during most of the summer of 1879 was ran as late as 9 p. m.

101 X Q. State the portions of 1879 when the shop worked until 9 p. m. and the names of the workmen.

A. I cannot answer that question without referring to the payrolls of the company.

102 X Q. Can't you give any of the months of such late hours or any of the names?

A. I don't wish to do so without opportunity to refresh my memory.

103 X Q. Are you a mechanic?

A. I am not.

104 X Q. Were you in charge of any part of the mechanical work of the shop or of the company?

A. No; not directly; I may say not at all.

105 X Q. What occasion had you to go to the shop, as you have stated in your direct —, two or three times a week?

A. To keep myself familiar with what was being done in the

business, as I was an officer of the company and had a considerable financial interest in it.

106 X Q. What money, if any, did you put in, and when and in what shape?

324 A. I put in for myself about two thousand dollars in cash at various times, beginning in 1878, and endorsed the company's notes, which were discounted at the bank, to the amount of five thousand dollars.

107 X Q. In what shape and to whom did you pay the two thousand cash?

A. Paid some in cash, some of it in checks to myself, as treasurer, and to Gustam and other persons for the current expenses.

108 X Q. Have you got an account of these money transactions in writing?

A. I don't know whether I have or not; I had an account; can't say now where it is.

109 X Q. During what portions of 1879 was the shop in Hudson street idle?

A. From about January 1st until about April 1st or the time when Adams was employed; then we began again.

110 X Q. Did the company have any office and where?

A. It had an office at No. 71 Broadway, at the office of William Q. Judge.

111 X Q. Were you in the habit of going there; and, if so, how often?

A. I went there occasionally; cannot say how often.

112 X Q. I show you Defendants' Exhibit No. 9, lead-pencil sketch, and ask you to tell me when that was drawn and by whom.

A. Cannot fix the date when it was drawn, except it was while the company was idle and shortly before it resumed operations. The sketch in the lower left corner was made by Mr. Hall and the other larger sketch by Mr. Judge.

113 X Q. Did you see these sketches made?

A. I did.

114 X Q. Which one of them was made first?

A. I think the one by Mr. Hall.

115 X Q. Why do you say "I think" when both are made on the same paper; can't you be positive?

A. No; I can't say that I am positive, but to the best of my recollection Mr. Hall's was made first.

325 116 X Q. Was it then surrounded with a red circle as now?

A. I think not; I have no recollection of the circle at the time

Adjourned until May 21, 1884, at one p. m.

NEW YORK, *May* 21, 1884—1 o'clock p. m.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Cross-examination of Mr. OLIVER continued:

117 X Q. Are you able to state positively that Defendants' Exhibit No. 9, lead-pencil sketch, is the same piece of paper that you say you saw Judge and Hall draw sketches on?

A. I will not swear that it is the same piece of paper; it was a piece like it.

118 X Q. How, then, are you able to swear that the sketches on that paper, Defendants' Exhibit No. 9, lead-pencil sketch, are the same that you say you saw made?

A. I saw sketches such as are on the paper made; I believe them to be the same sketches; I have no means of identifying a particular piece of paper.

119 X Q. State how many teeth were in the gearing of the handles in Judge's sketch.

A. To the best of my recollection, three teeth on one handle and two on the other.

120 X Q. Where were these teeth placed in the sketch?

A. Between the handles, opposite their fulcra.

121 X Q. How many of the teeth were opposite the fulcra?

A. They were all opposite the fulcra or nearly so. I cannot reproduce the sketch in all its minute particulars, either by description or otherwise.

326 122 X Q. How many teeth were *they* in the sketch made by Hall?

A. There was one pin represented opposite or nearly opposite the fulcra of the handles.

123 X Q. Do you know how that pin was represented, if at all affixed to the handles?

A. It was explained to me by Mr. Hall that one end was to be fixed in one handle and the other to move in a hole in the opposite handle.

124 X Q. Have you been examined before under oath in relation to the matters involved in his suit?

A. I have—in the interference case; my testimony-in-chief is found on pp. 55 to 68, inclusive, and also my testimony in rebuttal is found on pp. 101 to 105, inclusive—all in printed record of said interference case.

125 X Q. In your answer to X Q. 107 you state you paid some money to the company in checks to yourself. On what bank were these checks drawn and what were their amounts?

Question objected to as not cross-examination and as immaterial.

A. Cannot remember upon what banks they were drawn; some of them were the checks of other persons than myself; cannot remember the amounts.

126 X Q. In answer to X Q. 106 you state you discounted notes

for the company to the amount of five thousand dollars; where and when were these notes discounted?

Same objection.

A. Fulton Bank of Brooklyn; don't remember the dates.

127 X Q. Cannot you state the year and part of the year in which those notes for five thousand dollars were discounted?

Same objection.

327 A. I cannot without opportunity to refresh my memory.

128 X Q. Were you not treasurer of the company then?

A. I was.

129 X Q. Did you have any other notes discounted for the company?

A. I did not.

130 X Q. Was this discounting of five thousand notes before or after the company's shop was moved to Hudson street?

A. After.

131 X Q. Cross-question 127 repeated.

A. It was done in the winter of 1879–'80.

132 X Q. Was your testimony as given in the interference case and shown on the record true?

A. I swore to it; it was.

133 X Q. If, therefore, you swore that "up to January 1, 1880, I had no active part in the company's business; I had charge of its funds simply, and visited its office for a short time about twice a week; after January 1, 1880, I was its book-keeper and did the office work of the company," that was true, was it not?

A. It was.

134 X Q. Had you any other business during that period, and what was it?

A. Up to January 1, 1880, I was teller in the National City Bank of Brooklyn; after that I had no other business than book-keeper of the company until about September 1, 1880.

135 X Q. You have spoken about your visits to the Harlem shop. What kind of nipper was made there? Describe it, if you can.

A. It was like one of the exhibits in this case, which I would recognize if shown me. It was made of two jaws and two handles held between two plates by screws which operated as fulcra or pinions for the handles and jaws. The jaws, handles, and plates

328 were all similar to those shown in Defendants' Exhibit Hall's No. 2 Nipper, but there was no gearing between the handles, and the spring placed between the jaws was supported by a brass block or a screw placed beneath it.

136 X Q. Is your memory of the events and dates relating to the matter in controversy in this suit as clear as it was when you testified in the interference case in August, 1881?

A. It is; and in some respects clearer.

137 X Q. Why is this so?

A. Because I have given the matter a good deal of thought and

have been able by association of events to recall some things which might have escaped my memory in my previous examination.

138 X Q. Have you read or heard read any part of your prior testimony? Have you talked with any one about it or the testimony you have given here; and, if yea, with whom and when?

A. I have read portions of it and have had some conversation with my counsel with regard to it during the past few weeks, at various times.

139 X Q. When did you first see the wood-cut Kennedy nipper, and where?

A. In February or March, 1879, at the office of W. Q. Judge.

140 X Q. Where and when and at what times in the day did you see Moses C. Johnson at work, and what work did you see him do?

A. First saw him at work in the Hudson-street shop about the end of April, 1879, and at intervals of two to four days, at the same place, until February, 1880, toward the close of the day. I cannot describe all the pieces of work I saw him do; I remember seeing him at work first in altering the Jencks model. If you wish me to tell you every stroke of work that I saw Mr. Johnson do I cannot undertake to do so.

141 X Q. What was the first alteration that you saw Mr. Johnson make on the Jencks model?

329 A. I never saw him make anything from beginning to end, but saw him with parts of the model in his vise and in his hands, working upon them with a file.

142 X Q. When and where was it that you say Adams advised the patenting of the improved nipper, and what were Adams' words on that occasion?

A. It was in the shop in Hudson street, near the office door, about July 1, 1877. His words were substantially, "I would get the whole thing patented over again." I don't remember his exact words.

143 X Q. Did the company make any attempt to patent it as so advised?

A. Not at that time.

144 X Q. When did they, if ever.

A. When the French patent was applied for in France.

145 X Q. Why did not the company apply for a patent in the United States?

A. Because they did not consider it necessary and did not want to spend money uselessly.

146 X Q. Did the company have the money as long as you were treasurer?

A. They had money from time to time, but needed it to meet current expenses of their business.

147 X Q. Do you know the amount of fees for a patent in the United States?

A. I have been told that these are about sixty dollars.

148 X Q. When and where did you see Johnson's Exhibit D, and how often have you seen it?

A. I saw it at my examination in the interference case and in this case; that is all I can swear to. I may have seen it before.

149 X Q. Did you not see it in the shop in Hudson street?

A. Cannot say; saw several there similar to it.

150 X Q. Will you swear positively that you did not see Johnson's Exhibit C in the shop in Hudson street or any other place before you saw it in the interference case?

330 A. I will swear positively that I did not see it.

151 X Q. When you saw first Defendants' Exhibit Nipper Handles were they so separated or were they in a complete pair of nippers?

A. The ones like these that I saw first were in a pair of nippers, and the nippers were taken apart at the time by Mr. Adams to show me how they were made.

152 X Q. How many pins were there in the handles you saw?

A. There were three pins in one handle and two in the other.

153 X Q. How were these pins inserted, if at all?

A. They were inserted in holes drilled in the handles, as I was informed by Mr. Adams at the time.

154 X Q. What was the shape of the pins in the handles you *said?*

A. They looked like bits of wire with the ends bevelled a little.

155 X Q. How recently before this your present examination have these handles been shown you, and by whom?

A. Within a week, and by my counsel.

156 X Q. Did the pair of nippers of which Defendants' Exhibit Nipper Handles was a part work successfully; and, if not, why not?

A. The pair that I saw, though roughly and imperfectly made, worked well enough to show how the gear principle could be applied.

157 X Q. What sort of a nipper was it that you call roughly and imperfectly made; what was rough and what imperfect in it?

A. It was one of the old style, the parts of which had not been polished; its imperfection was its lack of finish.

158 X Q. What parts were unfinished?

A. Plates and handles; don't remember about the jaws.

159 X Q. Were there any pieces of metal dovetailed on it?

331 A. I did not see any; there might have been.

160 X Q. Were you told that there were; and by whom, if so?

A. No; not that I remember.

161 X Q. At the time of the application for the French patent what nipper was the company making?

A. A nipper like Defendants' Exhibit Hall's No. 2 Nipper.

162 X Q. You have never given any orders for changing the mechanical part of the manufacture of nippers by the company, have you?

A. No; I have not.

163 X Q. What alterations did you see Mr. Johnson make in the Jencks model?

A. I saw him make no alteration completely, but saw him at work making alterations.

164 X Q. What alterations did you see him at work on first?

A. Making teeth on a handle.

165 X Q. How many teeth was he making?

A. Cannot say; it was one of the handles; cannot say which.

166 X Q. Was or was not the Jencks model, when altered, used by the company as a model, and what for?

A. It was; and for making special tools and gauges for use in the manufacture of nippers like it.

167 X Q. Were many such nippers made, and what was done with them?

A. A great many—about thirty thousand—were made; they were sold.

168 X Q. Of what metal were the teeth that you speak of seeing Mr. Johnson make on the Jencks model made?

A. Either steel or iron.

169 X Q. How were these teeth made?

A. What I saw done on them was done with a file.

170 X Q. What did you see done with a file on them?

332 A. I saw them when nearly completed, and they were being filed, as I supposed, to their finishing point.

171 X Q. Were these teeth inserted or cut out?

A. They were cut out of metal that had been added to the handles by dovetailing or brazing.

172 X Q. How many teeth were there?

A. One tooth in one handle and two teeth in the other, as near as I can remember.

173 X Q. On what days of what month did you see Johnson at work on the Jencks' model?

A. I cannot undertake to answer that question.

174 X Q. Do you know whether or not A. Gustam is alive?

A. I do not.

175 X Q. Do you know whether he is a brother-in-law of Thomas G. Hall?

A. He is.

176 X Q. Do you recollect any other alterations in the Jencks model beside recutting the teeth?

A. Yes.

177 X Q. Have you had your recollection refreshed on this point since your examination in the interference case, and by whom?

A. I have, by my own reflection and conversation with my counsel.

178 X Q. Did he point out to you that you then swore, "I don't remember any," and in answer to the question, "State, if you recollect, whether there was any other change made in the Jencks model nipper than that of putting the gearing between the handles?"

A. He did not.

179 X Q. Did he read that portion of your testimony to you?

A. He did not, to my recollection.

Cross-examination closed.

333 Redirect by Mr. BROADNAX:

180 R. D. Q. State, as near as you can recollect when the alterations on the Jencks model nipper were completed?

A. About the end of May, 1879.

J. F. OLIVER.

Sworn to and subscribed before me this 21st day of May, 1884.

J. EDGAR BULL,
Notary Public and Spec. Exam'r, N. Y. County.

It is hereby stipulated between counsel that no objection will be taken to the above testimony of witness Oliver on the ground that it is not taken within the time limited by previous stipulations.

May 21, 1884.

HORACE BARNARD,
Complainant's Solicitor and Counsel.
AMOS BROADNAX,
Defendants' Solicitor.

Adjourned until May 22, 1884, at — p. m.

334 *Samuel Leopold's Direct.*

NEW YORK, *May 22d*, 1884—1 p. m.

Parties meet pursuant to adjournment.

Present: Same counsel.

SAMUEL LEOPOLD, a witness produced on behalf of defendants, and being one of said defendants, being duly sworn, in answer to interrogatories propounded by Mr. BROADNAX, testified as follows:

1 Q. What is your name, age, residence, and occupation?

A. My name is Samuel Leopold; am 29 years of age; reside at 179 Bergen street, Brooklyn, N. Y.; am a merchant—a dealer in fancy goods.

Complainant's counsel requests examiner to instruct witness in his answers simply to state matters of his own knowledge.

2 Q. Are you one of the defendants in this suit?

A. I am.

3 Q. What, if any, office do you hold in the Interchangeable Tool Company?

A. Secretary and treasurer, since the early part of 1881; am also a director and stockholder; have been director since early part of 1881.

4 Q. I place in your hands Complainant's Exhibit 3d; state if you recognize it as the nipper manufactured by the Interchangeable Tool Company.

A. I do.

5 Q. State if you have manufactured any nippers like that or substantially like that for your own account, use, or benefit.

Objected to as immaterial.

A. I have not.

6 Q. State whether you have manufactured any such nippers for the joint account, use, or benefit of yourself or codefendants.

Objected to as immaterial.

335 A. I have not.

Direct examination closed.

Cross-examination by Mr. BARNARD:

7 X Q. Are you a stockholder in the Interchangeable Tool Company, and how much stock do you own?

A. I am, and have fifteen shares standing in my name on the books of the company.

8 X Q. Do you own any other shares not so standing in your name, and how many do you own?

A. I control about eighty-five shares.

9 X Q. Question repeated.

A. I own about eighty-five shares which are not transferred on the company's books to me.

10 X Q. What is the capital of the company and into how many shares is it divided?

Question objected to as impertinent, there being no action against the company.

A. The capital stock of the company is seventy-five thousand dollars, divided into fifteen hundred shares.

11 X Q. Do you know how many shares of this stock each of your codefendants own?

A. I do not.

12 X Q. Do you know how many Thomas G. Hall or James F. Oliver or David L. Harris have standing in either of their names on the books of the company?

A. I do not.

13 X Q. How long have you known that the Interchangeable Tool Company has been engaged in manufacturing nippers like Complainant's Exhibit 3d?

A. Since I have been a director of the company.

14 X Q. Have you taken any part in the direction of such manufacture?

A. I have not.

15 X Q. What part have you taken in the direction of the company?

336 A. Have kept the books and attended to the receipts and disbursements; also attended directors' meetings for the transaction of the company's business and participated therein.

16 X Q. Have your codefendants also attended these meetings, or have any of them, and whom?

A. They all have, at various times.

17 X Q. From what sources have come the receipts of the company?

A. From the sale of nippers, including those made like Complainant's Exhibit 3d.

18 X Q. Are you able to state approximately what number of nippers made like Complainant's Exhibit 3d the company has made and sold since you became a stockholder, or since you became treasurer and secretary?

Question objected to as not cross-examination and as impertinent, as exposing the business of the company, against whom there is no action. Defendants' counsel instructs witness not to answer.

A. By instruction of counsel, I decline to answer.

19 X Q. Did you ever protest against the manufacture of nippers like Complainant's Exhibit 3d by the company since you became a director of the company?

A. No.

Cross-examination of witness closed.

SAMUEL LEOPOLD.

Sworn to and subscribed before me this 22d day of May, A. D. 1884.

J. EDGAR BULL,
Notary Public, N. Y. Co., N. Y., and Special Examiner.

337 *David L. Harris' Direct.*

DAVID L. HARRIS, one of the defendants in this suit, produced as a witness on behalf of defendants, being duly sworn, and examined by Mr. BROADNAX, testified as follows:

1 Q. What is your name, age, residence, and occupation?

A. My name is *Daniel* L. Harris; am twenty-nine years of age; reside at 179 Bergen street, Brooklyn, New York; am a bank teller in National City Bank of Brooklyn.

2 Q. Are you one of the defendants in this suit?

A. Yes, sir.

3 Q. What, if any, office do you hold in the Interchangeable Tool Company?

A. Am a director.

4 Q. How long have you been such director?

A. Since from about a year after the organization of the company.

5 Q. How long have you been a stockholder in the company?

A. Since about two months after the organization; since about October, 1878.

6 Q. I place in your hands Complainant's Exhibit 3d. State if you recognize it as the nipper manufactured by the Interchangeable Tool Company.

A. I do.

7 Q. State whether you have ever manufactured any such nippers for your own account, use, or benefit.

Objected to as immaterial.

A. I have not.

8 Q. State whether you have manufactured any of those nippers for the joint use, account, or benefit of yourself and codefendants.

A. I have not.

9 Q. State, as near as you can recollect, when you first saw a Hall nipper having a pin gearing between the handles.

338 A. I saw one almost immediately after the company moved into the shop in Hudson street.

10 Q. Who showed it to you?

A. Mr. Hall.

11 Q. Where?

A. At the shop in Hudson street.

12 Q. Was that before or after Mr. Johnson went into the employ of the company?

A. I think it was before.

13 Q. How was the gearing made—I mean what did it consist of?

Objected to, as witness is not an expert or mechanic.

A. Of small pieces of wire.

14 Q. Whereabouts were these pieces of wire placed in the handles so as to form a gearing?

Objected to as leading—plainly instructing the witness and directing the form of answer, even.

A. Were placed on the insides of handles.

15 Q. In what relation was this gearing with reference to the fulcra of the handle?

Same objection.

A. I will have to get you to show one—to explain what you mean.

16 Q. Examine the nipper now shown you, being Defendants' Exhibit 20 in this case, and state how the pin gearing between the handles of the nipper shown you by Mr. Hall differed, if at all, from the pin gearing between the handles of this nipper.

Objected to, because witness is not an expert and because question and exhibition is instruction to and leading the witness.

339 A. They were pieces of wire placed in the sides, which looked to me just like that.

17 Q. Do you recollect how many pins there were in each handle of the nipper he showed you?

A. There was at least two on one side; I don't know how many on the other.

18 Q. Do you know how the pins were put in?

Objected to as leading.

A. I don't know how they were put in.

19 Q. Are you a mechanic?

A. I am not.

20 Q. You merely recollect, as I understand you, of Mr. Hall's showing you a nipper at that time with a pin gearing between the handles?

Objected to, as witness is not a mechanic or expert.

A. Yes, sir; I recollect it distinctly.

21 Q. You did not see the pins put in or know who put them in?

A. No, sir.

22 Q. Please to examine the book now shown you and state, if you know, what it is.

Question objected to on the ground that the proper mode of proving what the book is has not been resorted to and the contents cannot otherwise be made evidence, and without this the question is immaterial.

A. It is the minute book of the Interchangeable Tool Company.

Move to strike out answer.

340 23 Q. Please to read any resolution you may find in that book directing any patent to be applied for in France for the Hall nipper.

Question objected to for above reasons and the same objection as in Oliver's examination in this regard.

A. "Tuesday, October 7, 1879. On motion of Mr. Harris, it was resolved that the secretary be instructed to apply immediately for a French patent on the Hall nipper." That is all on the French patent.

Same motion.

24 Q. Are you the person who offered that resolution?

A. I am.

25 Q. Is the resolution, as you have read it, a correct record of the resolution as you offered it?

Same objection.

A. It is.

Same motion.

26 Q. What nipper is referred to in that resolution?

Objected to, as witness is not a mechanic or expert.

A. The improved nipper; the nipper with the gearing.

Same motion.

27 Q. State, if you know, who, if any one, furnished the money to pay for the application directed to be made by that resolution.

341 Same objection; also as immaterial.

A. I did.

28 Q. How much did you furnish, and when did you furnish it?

Objected to as immaterial.

A. About $150; almost immediatety after this meeting in which the resolution was passed.

Same motion.

29 Q. Whom did you give the money to?

Objected to as immaterial.

A. Augustus Gustam.

30 Q. Was the resolution passed upon the day of its date?

Question objected to and, witness having looked at the book, complainant's counsel objects to his answering.

A. It was.

31 Q. At the time the resolution was passed had you heard from Mr. Johnson or any one else that Mr. Johnson claimed to be the inventor of the Hall nipper or any part of it?

Objected to, on the persistent use of the definition of the nipper in litigation as the "Hall nipper." If it does not relate to the nipper improved by Johnson it is also immaterial.

A. No, sir.

32 Q. Did you hear from Mr. Johnson or from any one else, up to the time that Johnson left the employ of the company, that
342 he (Johnson) claimed to be the inventor of the whole or any part of what is known as the Hall nipper—by which I mean the nipper which I have shown you, marked Complainant's Exhibit 3d?

Objected to, as witness is not an expert or mechanic and is not capable of understanding the subject of these improvements; also as leading.

A. No, sir; I did not.

33 Q. Up to the time Mr. Johnson left the employ of the company did you hear from him or from any one else that he claimed to be the inventor of the whole or any part of any nipper manufactured by the company?

A. I did not.

34 Q. When did you first hear that Mr. Johnson claimed to be the inventor of any part of any nipper manufactured by the company?

A. Shortly after Mr. Johnson was discharged from the employ of the company.

Adjourned until May 23, 1884, at 11 a. m.

NEW YORK, *May* 23*d*, 1884—11 a. m.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Examination of Mr. HARRIS continued:

35 Q. Fix the date, as near as you can, when Mr. Hall first showed the nipper having the gearing between the handles?

A. It was shortly after the company began work in Hudson street—about April, 1879, as near as I can recollect.

36 Q. Who was present when he showed it to you?

A. Mr. Adams, Mr. Hall, and myself.

37 Q. What reason did Mr. Hall give, if any, for having put the gearing between the handles?

343 Objected to, as witness is not an expert and Mr. Hall has already been fully examined.

A. He said that before putting in the gearing the jaws did not work evenly, and by this arrangement he thought he could obviate that and make them work properly.

Move to strike out as hearsay.

38 Q. After the company started work in the Hudson-street shop how frequently did you visit the works, and with whom?

A. Fully twice a week, with Mr. Oliver; sometimes oftener.

39 Q. How long did your visits continue?

A. As long as the shop was continued in Hudson street.

40 Q. About how much time did you spend at the shop at each visit?

A. An hour or more.

41 Q. During the time that Mr. Johnson was in the employ of the company who, if any one, did you hear give him credit for the invention of the improvement upon the nipper?

A. I heard no one.

42 Q. To whom was the credit given for the improvement?

Objected to as immaterial.

A. To Mr. Thomas G. Hall.

Direct examination closed.

Cross-examination by Mr. BARNARD:

43 X Q. Have you talked with any one about your testimony in this case since yesterday; and, if so, with whom?

A. I went over what I said yesterday with Mr. Leopold on my way home.

344 44 X Q. How long have you been a bank teller, and what are your hours of attendance at the bank? How long have you been in the bank?

A. I went into it about 1870. My hours of daily—save Sunday—attendance are from 9 a. m. until 4 p. m.

45 X Q. In what portion of the day did you visit the shop in Hudson street?

A. Immediately after banking hours.

46 X Q. Had you anything to do with the mechanical work at the shop in Hudson street?

A. I did not.

47 X Q. Do you live in the same house with the witness, Samuel Leopold?

A. Yes, sir.

48 X Q. How many shares of the capital stock of the Interchangeable Tool Company have you owned and do you now own?

A. I have never owned more than 200 shares. I own now about 161 shares.

49 X Q. Have you attended all the meetings of the directors of the company since you became a director; if not, how many of such meetings, and when and where were they held?

A. I have attended almost every one while the company was doing business in New York and a few at Milford. I can't give the dates when they were held. I received notice of meetings and attended.

50 X Q. Where were these meetings held in New York, and at what hours of the day?

A. Generally in the office in Hudson street; between the hours of four and seven.

51 X Q. Did the company have any other office than that in Hudson street in New York?

A. I think it had an office at 32 Howard street for the sale of goods. One of the officers had desk room there.

52 X Q. No other office?

A. None that I know of.

345 53 X Q. Who presided over the meetings you attended, and who were present at them?

A. Mr. Thomas G. Hall, Messrs. J. F. Oliver, Augustus Gustam, Charles H. Oliver (while he was director), James W. Fowle (while he was), Henry S. Rogers at one meeting (the last we held in Hudson street, I think). Those are all I can think of.

54 X Q. What position did Augustus Gustam hold?

A. At first he held the position of secretary. After that he became general agent.

55 X Q. How long was he secretary, and what were his duties?

A. He was secretary up to about February, 1880. He had charge of the books and correspondence of the company; and, further than that, he had charge of the sale of the goods, and, in conjunction with Mr. Hall, he had the general management of the business of the company.

56 X Q. Did you vote at all the meetings you attended?

A. I did; at all the meetings I attended as a director.

57 X Q. Have you received any money from the company; if yea, how much, and for what.

A. I have never received a cent.

58 X Q. Can you state positively the date of Mr. Johnson's (M. C.) employment by the company? If yea, state it.

A. I can't give the exact date. I can give the month. It was in the spring of 1879 it commenced. I think it was April.

59 X Q. Can you state positively that Mr. Hall showed you a nipper with pins between the handles before Johnson's employment?

A. Yes, sir; I can state that positively.

60 X Q. Have you in any way, by conversation with another person or otherwise, refreshed your recollection on this point since yesterday?

A. No, sir.

61 X Q. What was the exact date on which Mr. Hall showed you that nipper?

346 A. I can't give you the exact date.

62 X Q. Did you ever have any talk with any one about patenting the improved nipper before October, 1879; and, if yea, with whom, and what was the conversation? State time and place.

A. I talked with Mr. Gustam, who urged upon me the necessity of procuring the French patent and other foreign patents as soon as the money could be forthcoming, and thereupon I advanced the money to procure the French patent. This was on the street, a short time before October 7, 1879, walking home one evening.

63 X Q. Was this the only conversation you had with any one on the subject of patenting the improvements on the nipper?

A. I did not have any talks with any one about patenting the improvements, but patenting the nipper as it now stands.

64 X Q. Did Mr. Gustam or any one else give you any reason for seeking a French patent; if yea, what?

A. He only gave me the reason that it would prevent others from manufacturing the goods and selling them in France.

65 X Q. Was anything said about an American patent by any one at any time prior to March, 1880?

A. There might have been in a general way to this effect: It might be well to have a new patent to prolong the time, but that it was not absolutely necessary, as the gearing had been invented by Mr. Hall, and we could dispense with getting the new patent until we had more money.

66 X Q. Who said this, and when, and where?

A. All of the directors among ourselves, at different times and at different places.

67 X Q. Did you ever see the letters patent and drawing granted to Thomas G. Hall by the United States, dated November 5, 1878?

A. I did; shortly after they were granted.

347 68 X Q. Do you know the amount of fees properly chargeable for an American patent?

A. I think it is about $70.

69 X Q. Did you know what the differences were between the description of the Hall nipper in the patent of November 5, 1878, and that used in the application for the French patent?

A. Yes, sir.

70 X Q. Will you state what were these differences?

A. The only thing I can state is one had the gearing and the other had not. I say further, if it hadn't the gearing I would not have advanced the money to procure the French patent.

71 X Q. Did you ever see Moses C. Johnson at work in the shop in Hudson street prior to July, 1879?

A. Saw him almost immediately after he came there and almost every time I went there (when he was in condition to work).

Move to strike out words in parentheses.

72 X Q. What work did you see him engaged upon?

A. Engaged in tool-work. I don't know the exact kind of work.

73 X Q. Did you at any of these visits at the shop stand by and see M. C. Johnson work?

A. Yes, sir.

74 X Q. If any one was standing by him at the time with you, state who that person was.

A. At different times there was standing by Mr. Hall, Mr. Gustam, Mr. Oliver, and probably others.

75 X Q. Was anything said in your hearing at such times concerning the special work that Mr. Johnson was engaged on?

A. I don't recollect.

76 X Q. Do you know what Mr. Johnson was employed for?

A. To do tool-work and fine work in general. He was supposed to be an expert.

348 77 X Q. Did Mr. James M. Adams ever show you any nippers with improvements on the nipper shown in Hall's patent of November 5, 1878?

A. I don't know that he showed me anything in particular of any kind.

78 X Q. Did he show any to others in your presence?

A. I don't recollect what he showed to others.

79 X Q. Do you recollect of his showing anything to any one at any of your visits to the shop in Hudson street prior to July, 1879?

A. He might have showed parts of the work. I took no notice of them, not being a mechanic.

80 X Q. Did you ever have any conversation with Mr. Adams at the shop in Hudson street or elsewhere in relation to the improved nipper?

A. I think I did.

81 X Q. Please state when and where and what he said.

A. At the shop and in walking down Fulton street to the ferry I said to him that the gearing in the nipper would make it almost perfect, and that it ought to meet with a large sale. He said he thought that was so, and he could see no reason why we should not sell a large number of nippers. This was while he was in the shop in Hudson street—the spring and summer of 1879. This is all I recollect.

82 X Q. Did Mr. Adams never say anything to you about his having made those improvements?

A. No, sir.

83 X Q. Did you ever see any drawing made by Mr. Johnson of the improved nipper?

A. No, sir.

84 X Q. Did you ever have any talk with any one who was not a director or stockholder of this company about the improvements on Hall's nipper of Nov. 5, 1878?

A. Yes, sir.

85 X Q. Who was it and what was the conversation, and where was it had and when?

A. It was with Mr. M. C. Johnson, in the shop in Hudson
349 street, at different times while he was employed there, and also while he was employed at Milford. I said to him that the improvement in the nipper made it almost perfect, and should now meet with a large sale. He said he thought so too. He could see no reason why it should not.

86 X Q. Was this the whole of these conversations, or was that the only one?

A. That was the substance of all the conversations I had with him.

87 X Q. Did you never, while standing by him and seeing him at work, as you have testified, ask him what special work he was doing?

A. No, sir; not being a mechanic, I was not interested.

88 X Q. Did you ever see Mr. Thomas G. Hall make any of the improvements on the nipper?

A. No, sir.

89 X Q. Did Mr. Thomas G. Hall ever show you any model made by himself of any such improvements?

A. No, sir.

DAVID L. HARRIS.

Sworn to and subscribed before me this 23d day of May, A. D. 1884.

J. EDGAR BULL,
Notary Public and Special Examiner.

HENRY S. ROGERS, of Milford, Conn., a witness produced on behalf of defendants, being duly sworn, in answer to interrogatories propounded by Mr. BROADNAX, testified as follows:

1 Q. What is your name, age, residence, and occupation?

A. My name is Henry S. Rogers; am seventy-one years of age; reside in Milford, Conn. I am retired from business.

350 2 Q. State whether you are acquainted with the Interchangeable Tool Company, and whether you are now or have ever been an officer of that company.

A. I was a director of the company and was elected their treasurer about the latter part of March, 1880.

3 Q. How long did you continue to be a director?

A. From that time up to the next annual meeting—a period of about six months.

4 Q. Were you treasurer also during the whole of that time?
A. Yes.
5 Q. Are you acquainted with Thomas G. Hall and Henry G. Thompson?
A. Yes.
6 Q. And are you also acquainted with Moses C. Johnson and Augustus Gustam?
A. Yes.
7 Q. What was the character of Mr. Johnson and Mr. Gustam for soberness —I mean temperance—at the time that you knew them in Milford?

Objected to as immaterial and irrelevant.

A. My experience was that it was about as bad as could be.
8 Q. Were they upon friendly terms and in the habit of getting drunk together?

Same objection.

A. Very friendly and most outrageously drunk.
9 Q. Please to examine the nipper now shown you, being Defendants' Exhibits Hall's No. 2 Nipper, and state if you recognize it as the nipper manufactured by the Interchangeable Tool Company, of which you were a director.
A. Yes, that's the nipper.
10 Q. Have you now any interest in the Interchangeable Tool Company?
A. No.
351 11 Q. When did you cease to be a stockholder in that company?
A. Some time in the fall of 1883.
12 Q. State what, if anything, you know about the failure and assignment of the Interchangeable Tool Company.

Objected to as utterly irrelevant and because the company is not a party to the action.

A. I was notified as one of the creditors and attended the creditor's meeting when the assignment was made.
13 Q. And did you afterwards become the assignee of the company?
A. Yes.
14 Q. When did you first hear, if at all, that Mr. Johnson claimed to be the inventor of any improvement upon the nipper manufactured by the company?

Objected to because witness is not an expert and has not been shown to know what the original nipper was or what the improvements were.

A. I think it was soon after—about the time I became assignee.
15 Q. Of whom did you hear it?
A. My impression is that I was informed of it first by Mr. Thompson (Henry G.).

16 Q. What did Mr. Thompson say to you when he informed you of the fact mentioned in my last question?

A. That Johnson claimed to be the inventor of a certain part of that nipper, and that he had negotiated or was in the possession of that interest.

17 Q. Did Mr. Thompson inform you what the improvement was that Mr. Johnson had made upon the nipper? And, if so, please state what it was.

A. It was in connection with the bearing of the two handles of the nipper.

352 18 Q. Do you mean by your last answer that it was the gearing between the handles of the nipper that Mr. Johnson claimed to be the inventor of?

A. Yes.

19 Q. And did Mr. Thompson claim to have a patent for that improvement, purchased by him of Mr. Johnson?

A. At the time he informed me that the patent had been applied for; it was some time after that he informed me that the patent had been allowed.

20 Q. What, if any, experience have you had as a mechanic?

A. I was bound as an apprentice, soon after I was fifteen years old, at the carriage business; served my full time and carried it on afterward some six or eight years. I was for seven years in charge of several steam-engines as a superintendent of a company.

21 Q. What disposition did you make of the affairs of the Interchangeable Tool Company as assignee?

Objected to as immaterial and irrelevant, and as to Q. 12.

A. I advertised for all claims against the company and laid them before commissions appointed by the court. Such as were judged on I settled as far as I could, and an extension was granted for the remainder and I was fully discharged.

22 Q. What, if any, claims were presented to you, as assignee of the company, by Henry G. Thompson?

A. My impression is that he presented a claim for the stock which had been turned out to him in payment for his machinery, and also for two millions of dollars for some violation of a statute in connection with the stamping of the tools, and also as agent for a claim by a Mr. Adams, formerly employed by the company.

23 Q. Did you finally effect a settlement with Mr. Thompson for his claims?

A. The commissioners, on examining them, threw them out.

Question objected to as irrelevant and immaterial.

353 24 Q. Threw them out as worthless, do you mean?

Objected to as leading.

A. As worthless or as the company was not liable.

Complainant's counsel objects to further oral examination about the proceedings of the commissioners.

25 Q. In the settlement of the company's affairs what, if any, release did you obtain from Mr. Thompson?

Objected to because if in writing it must be produced, and is immaterial and irrelevant.

A. I took a receipt from him in writing and turned over his machinery and took back the stock of the company which had been given to him for his machinery.

Move to strike out answers as setting forth the contents of a writing not produced.

26 Q. Please to produce any paper you may have appertaining to the settlement referred to by you.

A. (Witness produces the paper referred to and hands it to counsel.)

Paper produced by witness offered in evidence and marked Defendants' Exhibit Rogers' Settlement with Thompson, J. E. B., Sp. Ex'r, 23d May, 1884.

Adjourned until May 24, 1884, 11 p. m.

354 NEW YORK, *May* 24, 1884.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Direct examination of Mr. ROGERS continued:

27 Q. The paper presented by you last evening, being the settlement between yourself and Mr. Thompson and the Interchangeable Tool Company, state, if you please, by whom it is signed.

A. It is signed by Thomas G. Hall, president of the Interchangeable Tool Company; myself, as trustee (assignee), and Henry G. Thompson.

28 Q. Were you present when Mr. Hall and Mr. Thompson signed it?

A. To the best of my recollection, we all signed it at the same time.

29 Q. Who introduced Mr. Hall to Mr. Thompson?

Objected to as irrelevant and immaterial.

A. I introduced him, to the best of my recollection.

30 Q. Were you present when Mr. Hall purchased of Mr. Thompson, for the Interchangeable Tool Company, the machinery referred to in this agreement?

Same objection.

A. I was present.

31 Q. Which of them proposed the sale of the machinery to the company for the 67 shares of stock mentioned in the agreement?

Same objection.

A. When Mr. Thompson fixed a price for his machinery he said he would take the amount in the stock of the company.

Move to strike out answer as not responsive.

355 32 Q. Was the 67 shares of stock a fair consideration for the machinery at the time of the purchase?

Same objection.

A. Situated as the machinery was, I think it was.

33 Q. At the time of the sale did Mr. Hall, in your presence, make any representation to Mr. Thompson as to the value of the stock; and, if yea, what representation did he make?

Same objection.

A. I do not remember that he made any special valuations. He stated the amount of the stock of the company and reserved the right to pay in money or in stock within a given time.

34 Q. In your intercourse with Mr. Hall what estimate have you formed of him as a mechanic and a man?

Same objection.

A. As it has developed itself, it is very favorable.

35 Q. Please to produce any claims you may have in writing presented by Mr. Thompson to you, as assignee of the Interchangeable Tool Company.

Same objection.

A. (Witness produces two papers, which he hands defendants' counsel.)

Which are offered in evidence and marked Defendants' Exhibit Thompson's Claims Nos. 1 and 2, J. E. B., Sp. Ex'r, May 24, 1884.

36 Q. Of whom did you receive these papers?

Same objection.

A. To the best of my recollection, from Mr. Gunn, Mr. Thompson's counsel.

Move to strike out answer.

356 37 X Q. Mr. George M. Gunn, do you mean?

Same objection.

A. Yes.

38 Q. Which, if either, of these claims were disallowed by the commissioners, as stated in your testimony yesterday?

Same objection.

A. Both of them.

39 Q. Were these claims given to you by Mr. Gunn on behalf of Mr. Thompson and as his counsel?

Same objection.

A. Yes; and acknowledged by Mr. Thompson.

40 Q. Do you mean they were subsequently acknowledged by Mr. Thompson as his claims?

Same objection.

A. Yes.

41 Q. Please to produce any claims you may have presented to you, as assignee of the company, by Mr. Gustam.

Same objection, and also that Mr. Gustam is no party to this suit.

(Witness produces paper and the)

Same is offered in evidence and marked Defendants' Exhibit Gustam's Claim, J. E. B., Sp. Ex'r, May 24, 1884.

Complainant's counsel objects to the admission of this as an Exhibit and moves to exclude the same.

357 42 Q. Of whom did your receive this paper, Defendants' Exhibit Gustam's Claim?

Same objection.

A. It was presented by Charles A. Tomlinson and subsequently acknowledged by Gustam as his claim.

Move to strike out answer.

43 Q. Previous to your becoming assignee of the company did you cause an attachment to be levied upon its assets?

Same objection.

A. My impression is that that attachment was levied by my brother, Isaac T. Rogers.

Move to strike out.

44 Q. About how long was that before you became assignee?

Same objection.

A. Five or six weeks.

45 Q. And after you became assignee did Mr. Thompson levy an attachment on the machinery of the company?

Same objection.

A. Yes.

46 Q. And was that attachment grounded upon the claims of Mr. Thompson which you have presented here?

Same objection.

358 A. Yes.

47 Q. What, if any, plan or scheme did Mr. Thompson present to you for swallowing up the Interchangeable Tool Company?

Same objection.

A. There was a proposition made to form a new company and place it under the control of different persons from the old ones.

Same motion.

48 Q. Who made this proposition?

Same objection.

A. Mr. Thompson.

49 Q. Please give the names of the persons that were to have the management and control of the new company.

Same objection.

A. I don't recollect particularly as to names, but I know the position of president was offered to myself or brother.

Same motion.

50 Q. What, if any, interest or office was Mr. Gustam and Mr. Thompson to have in the new company?

Same objection.

A. They were to retain their interest in it. Mr. Thompson or Mr. Gustam, I suppose, were to have the management.

51 Q. Have you any memorandum in writing, made by you at the time, of that plan or scheme proposed to you by Mr. Thompson? And, if yea, produce it.

359 Same objection.

A. I believe I have something of that kind, but have not it with me.

52 Q. Can you produce it here on Monday of next week?

A. If I have it I will do so.

Complainant's counsel objects.

53 Q. What was Mr. Gustam's reputation for truth, veracity, and integrity?

Objected to as irrelevant, immaterial, and because Gustam is not a party.

A. I don't like to say anything about a man's character, but as it has developed itself to me it couldn't be much worse; perhaps I should say as it developed itself to me in my transactions with the company.

Same motion.

54 Q. What can you say of Moses C. Johnson in answer to the same question?

Same objection, and because it is impertinent and scandalous.

A. A dissipated, worthless fellow.

Same motion.

Adjourned until May 26, 1884, at 1 p. m.

360 MAY 26, 1884—1 p. m.

Parties met pursuant to adjournment.

Present: Same counsel, same witness.

Examination of Mr. ROGERS continued:

55 Q. Please to produce, if you can, the paper referred to by you on Saturday.

A. (Witness produces paper and hands it to defendants' counsel.)

56 Q. Is this paper in your handwriting?

Objected to as irrelevant and immaterial.

A. Yes.

57 Q. When did you make it?

Same objection.

A. To the best of my recollection, about three months after I became assignee.

58 Q. And does it correctly represent the outline of the plan proposed to you by Mr. Gustam and Mr. Thompson at the time you made it?

Objected to as irrelevant, immaterial, and every way improper.

A. As represented by Mr. Gustam; of Mr. Thompson I do not recollect much.

59 Q. At the time that you made this memorandum was Mr. Gustam general manager of the Interchangeable Tool Company?

Same objection.

A. At the time he was making an effort to secure the creditors and relieve me from my position as assignee.

60 Q. Please to take this paper and read it to the examiner, so as to get it on the record.

361 Complainant's counsel objects to this as utterly improper, and protests against encumbering the record with irrelevant and immaterial matter.

A. (Witness reads as follows:) Mr. Gustam to surrender the machinery to Thompson on condition that Mr. Thompson give him the use of it one year, with the privilege of purchase, at $3,500, at the end of the year; Mr. Thompson to give Gustam the use of any patent rights he may have in the nippers on condition that Gustam gives Thompson the entire right of the English, French, and German patents, or foreign agency in the nippers, and Mr. Thompson shall give Gustam an order for one hundred dozen for each size of the nippers at such prices as may be agreed upon.

Paper offered in evidence and marked "Defendants' Exhibit Thompson and Gustam's Plan, May 26, 1884, J. E. B., Sp. Ex'r."

Direct examination closed.

Cross-examination by Mr. BARNARD:

61 X Q. How soon after your election as treasurer did you look into the financial condition of this company, if you ever did?

A. At that time.

62 X Q. What did you find the financial condition to be then?

A. I thought it a favorable exhibit, as presented to me by the books and vouchers of the company.

63 X Q. Where did you make this examination?

A. In New York, to the best of my recollection.

64 X Q. Who was treasurer before you?

A. My impression is that Oliver (J. F.) was, but I don't recollect.

65 X Q. Who was general manager of the company when you were treasurer and made this examination?

A. Gustam (A.).

362 66 X Q. How long did he continue such?

A. During the period of my treasurership—I ought to say that Thomas G. Hall was associated with him—Hall had charge of the inside of the factory and Gustam the outside.

67 X Q. Where was the factory of the company?

A. In the Steam-Power Company's building at Milford.

68 X Q. In your answer to Q. 9 you have recognized the nipper, Defendants' Exhibit Hall's No. 2 Nipper, as the nipper manufactured by the company. Do you mean that that was the nipper made when you became stockholder, before the company went to Milford, and that they have made since?

A. Yes; I have since compared it with one that I have and find it to be so.

69 X Q. When was the one you say you compared it with manufactured, and where?

A. About the time the company moved to Milford. I don't know whether it was made in New York or in Milford.

70 X Q. What is the size of the nipper you have and that you described as the standard of your comparison?

A. No. 2.

71 X Q. Did the company, while you were connected with it, make any change in the No. 2 nippers?

A. Not to my knowledge.

72 X Q. At what time did you or your brother levy the attachment you have referred to on the assets of the company, and where?

A. It was levied about six weeks before the assignment, to the best of my recollection, at Milford.

73 X Q. About how large was the claim of your brother against the company?

A. Between three and four thousand dollars, to the best of my recollection.

74 X Q. At the time of the assignment was or was not the company thoroughly bankrupt?

363 A. As one of the creditors, I did not favor the assignment, Not knowing its condition, I didn't know whether it was or was not.

75 X Q. Were you not afterwards convinced that it was bankrupt?

A. I wasn't.

76 X Q. Could the company at the time of the assignment pay its debts?

A. It couldn't meet its liabilities, but I think they could have been so extended as to avoid the assignment.

77 X Q. Did not the company make an assignment to Mr. Healy, of Hartford, and did he not refuse to qualify?

A. They made an assignment to Mr. Healy. For the better securing and settling with the creditors, I purchased Mr. Healy's claim and took his position as assignee.

78 X Q. Were you not treasurer and director of the company at the time?

A. No; I had resigned some six weeks before.

79 X Q. You say about the time of the assignment yon heard of Mr. Johnson claiming to be the inventor of the improvements on the nipper—first, from Mr. Thompson. From whom, besides him, did you hear of this claim?

A. It was a subject of conversation at the time, I think, with Mr. Pratt, of Pratt & Whitney Co., of Hartford; with Mr. Thomas G. Hall; no others, to my recollection.

80 X Q. Did you ever compare the nippers made by the company and stamped "Nov. 5, '78," with the nipper shown in the drawing annexed to the patent granted to Thomas G. Hall of Nov. 5, 1878, and when?

A. Yes; I don't recollect; I did it a number of times.

81 X Q. Did you perceive the differences between the nipper Defendants' Exhibit Hall's No. 2 nipper and that shown on the patent?

A. I don't recollect noticing any material difference.

364 82 X Q. Had the nipper shown in the drawing of patent granted Hall Nov. 5, 1878, any gearing between the handles?

A. Not considering the gearing a valuable part, I didn't give it my attention.

83 X Q. Do you call yourself a mechanic?

A. Yes, having had six years' experience and having had the run of about 50 engines. I considered the valuable part of the nippers in the leverage which gives power to the cutting part.

84 X Q. Do you not know that the company abandoned the manufacture of nippers under the patent of Nov. 5, 1878, because such nippers would not work successfully?

A. I did not know it.

85 X Q. In carrying out the settlement which you testified was made by you as "trustee in insolvency of the estate" of the Interchangeable Tool Company, testified to by you, did you retransfer to Mr. Thompson the engine, boiler, shafting, etc., and receive back from him the 67 shares of stock in the company given to him for that property?

A. I do not recollect the particulars; the agreement was carried out by my counsel and that of Mr. Thompson. I mean by "the agreement" Defendants' Exhibit Rogers Settlement with Thompson.

86 X Q. Was Mr. Thomas G. Hall acquainted with the contents of that agreement?

A. I presume he was; he signed it.

87 X Q. In that agreement (Defendants' Exhibit Rogers Settlement with Thompson) I find the following clause No.:

"5th. That the said Thompson hereby agrees not to commence any suits against Henry S. Rogers, aforesaid, for any acts of his while acting as trustee of said estate, whether in manufacturing goods or otherwise."

What acts were referred to?

365 A. I presume that that clause was placed there by my counsel to protect me from any acts that I might have done during my trusteeship in selling and putting together the nippers manufactured by the company.

88 X Q. On what grounds could Mr. Thompson sue you for selling and putting together the nippers manufactured by the company?

A. No grounds, to my knowledge.

89 X Q. Was it not because Mr. Thompson claimed that those nippers contained improvements invented by Mr. Johnson and for which a patent had been granted to him (Thompson)?

A. It might have been, but I see no cause of prosecution against me, acting as assignee.

90 X Q. Do you not know that it was intended to protect you against those very claims?

Question objected to on the ground that the instrument speaks for itself.

A. Mr. Thompson never presented any claims to me in any form or shape whatever.

91 X Q. (Question repeated.)

A. I can't answer the question any more definitely.

92 X Q. Who is your counsel in this matter?

A. William Stoddard, of Milford, Connecticut.

93 X Q. Did you consult with him before you signed that paper?

A. Yes.

94 X Q. Did you tell him why he put that clause in the agreement?

A. I don't recollect any more than I have stated concerning it.

95 X Q. Before that agreement was executed you knew, did you not, that Mr. Thompson had a patent for those improvements?

A. He told me he had; I never saw the patent.

96 X Q. You also knew that he claimed to own the invention as assignee of Moses C. Johnson, at the time you became assignee, did you not?

366 A. I don't recollect that I knew it before the assignment; it was about that time.

Defendants' counsel requests the examiner to note upon the record the continued instructions of the complainant's counsel to the witness, and the continual talk off the record, and objects to his tell-

ing the witness that he doesn't want this answer or that answer, as he is continually doing.

97 X Q. Do you consider that I have in any way instructed you as to what you shall answer to my questions?

A. I have no answer to put to that. I believe I have answered all the questions put to me to the best of my knowledge and belief.

98 X Q. Did Mr. Stoddard represent Mr. Hall as well as yourself?

A. Yes. I had a private attorney—Mr. Ives—who died, and then I employed Mr. Stoddard, who had been the counsel of the company.

99 X Q. Do you know about other attachments upon the assets of the company?

A. No. When I got Defendants' Exhibit Rogers Settlement with Thompson I was done, and I never had anything to say about the company from that time to this, nor knew anything about it.

HENRY S. ROGERS.

Sworn to and subscribed before me this 26th day of May, A. D. 1884.

J. EDGAR BULL,
Notary Public and Special Examiner.

Adjourned until May 27, 1884, at 2 p. m.

367 *Robert W. Crane's Direct.*

NEW YORK, *May 27h*, 1883—2 p. m.

Parties meet pursuant to adjournment.
Present: Same counsel.

ROBERT W. CRANE, a witness produced on behalf of defendants, being duly sworn, and interrogated by defendants' counsel (BROADNAX), testified as follows:

1 Q. What is your name, age, residence, and occupation?

A. My name is Robert W. Crane; am fifty-four years of age; reside at 436 Polaski street, Brooklyn, N. Y.; am a machinist.

2 Q. State where you were employed in the fall of 1878.

A. By Thomas G. Hall and the Interchangeable Tool Company, in Harlem, N. Y.

3 Q. Please examine the paper now shown you, being a printed copy of the specification and drawing making part of the patent granted to Thomas G. Hall, dated November 5, 1878, for improvement in cutting nippers, and marked "Defendants' Exhibit No. 7, Hall's patent of Nov. 5, 1878," and state if you recognize it as the nipper or drawing of the nipper made by the Interchangeable Tool Company in the fall of 1878, in Harlem.

A. Yes, sir; I do.

4 Q. State what, if any, conversation you had with Mr. Hall about putting a gearing between the handles of that nipper, and state when such conversation was had, if any.

Objected to as immaterial and irrelevant, the improvement having been made long subsequent thereto by another person not present at any conversation.

A. I think it was in the fall of 1877 that Mr. Hall came
368 to my bench where I was working, took his pencil and drew on a piece of paper the handles and a connection of a spur travelling into a hole opposite in the opposite handle, which would cause the handle to travel uniformly.

5 Q. The drawing or sketch which you say Mr. Hall made and showed you at that time, how did it differ from the spur and hole shown between the handles of Defendants' Exhibit Pin-and-Hole Gearing?

Complainant's counsel notes that this exhibit was made in 1884. Objected to as immaterial and irrelevant.

A. Not any. The location of the spur was central of the holding screws.

6 Q. State, if you recollect, whether previous to Mr. Hall showing you this sketch, of making some model nippers for Mr. Hall.

Objected to as immaterial and irrelevant.

A. I made three nippers—three different sizes—the first that were made from cast steel.

7 Q. State, if you recollect, what kind of a spring was put in those nippers and how the spring was held in place.

A. The first nipper I made had a V-spring held by a pin through the plate—same as in Hall's patent of November 5, 1878. The second had a V-spring between jaws without any pin. The spring would keep working towards the cutting edges of the jaws. The third one I made I filed the edge of the jaw, producing a small shoulder preventing the spring from travelling up toward the edge of the jaws.

8 Q. When did you make this nipper having the shoulder that prevented the spring working up toward the edges of the jaw?

A. I commenced it in the summer — '78, finished it in the fall of '78, at Harlem.

369 9 Q. State, if you please, how the shoulders that held the spring from riding up in that nipper differed from the corresponding shoulders in this model, Defendants' Exhibit Hall's Pin-and-Hole Gearing.

A. It did not differ any; the same as nipper shown me, with the exception of being a little lower down than this nipper. I think it might be a little lower. It might have been just the same.

10 Q. When Mr. Hall showed you his plan of a spur-and-hole connection between the handles what, if any, explanation did he give you of his purpose in making such connection?

Objected to as immaterial and irrelevant.

A. To cause the jaws and handles to travel together equally and in a uniform way.

11 Q. Were you employed by Mr. Hall as model-maker in the shop of the Interchangeable Tool Company at Harlem?
A. I was.

Direct examination closed.

Cross-examination by Mr. BARNARD:

12 X Q. Have you been examined before in relation to these nippers?
A. I have. My testimony is on pages 69 to 74, both included, in the interference record.
13 X Q. Was your testimony, as given in the interference case, true?
A. It was.
14 X Q. Have you a good memory for dates and facts?
A. Well, ordinarily.
15 X Q. What age did you swear that you had on that examination?
A. Fifty-two.

Complainant's counsel notes that this examination took place October 11, 1881.

370 16 X Q. Are you sure that you swore that you were fifty-two years of age?
A. To the best of my recollection.

Complainant's counsel notes that he then swore that he was fifty-three years of age.

17 X Q. Are you as accurate in the report of your alleged conversation with Mr. Hall as you are in your statement of your age?
A. I am.
18 X Q. You have stated that you made three nippers of three different sizes. Do you know whether the Interchangeable Tool Company, Mr. Hall, or any one else has manufactured and sold such; if yea, how many and where?
A. I never knew of any but Mr. Hall or the Interchangeable Tool Company manufacturing. Whether any were sold or not I don't know. I should say there were 400 made in Harlem.
19 X Q. Had any of these a gearing between the handles?
A. Not any.
20 X Q. Did you make any model of a nipper with a gearing between the handles?
A. I did not complete one. Mr. Hall drilled one for the spur, but whether he finished it or not I don't know.
21 X Q. Would you as model-maker, as you have testified, be likely to know whether he finished it or not?
A. I would if I had seen it after he put it in his desk. I never saw it after he put it in his desk, but I left there shortly after.
22 X Q. Would you, as a mechanic, consider the pin-and-hole gearing shown you by Mr. Hall a practical device for moving the handles uniformly?

A. It could be made to work just as well as the gearing,
371 but it would be much more expensive. It could be done by having a ball on the end of the spur that enters a hole in the opposite handle, thereby forming the radius of the travel.

23 X Q. Would a pin-and-hole gearing work practically without the ball on the end of the spur?

Question objected to, as the witness is not called or examined as an expert.

A. It would work with the pin entering an oblong hole. It would not work with the pin entering a hole of its exact size.

24 X Q. How as to exactness of motion, if the hole was larger than the pin?

A. There would then be lost motion.

25 X Q. Was there any ball on the end of the spur in the sketch you say Mr. Hall made and showed you?

A. There was not, to my knowledge.

26 X Q. What was the shape of the hole in that sketch?

A. Elongated.

27 X Q. Was there any spur, or ball on the spur, in the pair of nippers which you say Mr. Hall drilled but did not finish?

A. It was a straight spur entering an elongated hole.

28 X Q. Are you as positive and exact in your statements as to these points as to your statements of your age?

A. Well, I might have made a mistake in my age at the time I was first called as a witness in the interference case, but in this statement I am positive that what I have said is true.

29 X Q. Did you in your examination in the interference case testify about Mr Hall's drilling a pair of nippers for a pin-and-hole gearing?

A. I do not remember that I did. I remember making a statement of Mr. Hall marking it on a piece of paper on the bench where I was at work—the location of the spur and hole in the handles.

372 30 X Q. Have you talked with any one about your testimony given then and that to be given to-day, and with whom?

A. No.

31 X Q. Not at all?

A. Not at all.

32 X Q. If you did not mention the elongation of the hole on your first examination why did you not when describing the sketch and the working of nippers which might be made on that plan?

A. I was asked if they would work if the spur inserted were in a hole in the opposite handle. I told them it would bind. That is all I remember of the answer to that question.

33 X Q. (Question repeated.)

A. I think I did, but could not remember.

Question and answer objected to upon the ground that it doesn't appear that the witness was asked to describe the shape of the hole in which the spur worked.

34 X Q. Were you not shown the sketch testified to and asked whether nippers so made would not bind or lose motion?

A. I was, and I think I said they would bind.

35 X Q. Then are you positive that the hole shown on that sketch was elongated?

A. I am not.

36 X Q. Was Mr. Hall a skillful draughtsman?

A. As to Mr. Hall's ability as a draughtsman, I know nothing about it.

37 X Q. Did you ever see any other sketches by him?

A. I did not.

38 X Q. Did you ever make any nippers with a pin-and-
373 hole gearing or any other gearing between the handles, or see any so made before you saw one in Frasse's?

A. I never did.

R. W. CRANE,

Subscribed and sworn to before me this 27th day of May, A. D. 1884.

J. EDGAR BULL,
Notary Public and Special Examiner.

Adjourned until Thursday, May 29, 1884, at 1 p. m.

NEW YORK, *May* 29, 1884—1 o'clock p. m.

Parties meet pursuant to adjournment and adjourn until May 31, 1884, same time and place.

NEW YORK, *May* 31, 1884—1 o'clock p. m.

Parties met pursuant to adjournment.

Present: Same counsel.

ALOHA VIVARTTAS, a witness produced on behalf of defendants, being duly sworn, and interrogated by defendants' counsel (BROADNAX), testified as follows:

1 Q. What is your name, age, residence, and occupation?

A. My name is Aloha Vivarttas; am forty-nine years of age; reside at the corner of Hill and Spring streets, West Hoboken, N. J.; am an architect and engineer.

2 Q. What, if any, experience have you had in designing and making cog gearing?

Objected to as immaterial.

A. For thirty years I have been drawing and making
374 machinery of various kinds, and within that time I have had occasion to make and have made gear of various sizes and descriptions; I mean that I have designed and drawn gear and gear teeth; have made the same practically in the shop.

3 Q. I place in your hands a cutting nipper, being Defendants' Exhibit Hall's No. 2 Nipper; please to examine it, and especially the connection between the two handles, and state how that connec-

tion differs, if at all, in substance, from a cog connection, such as is made by the meshing of two ordinary cog-wheels.

Objected to as immaterial.

A. The two handles of this exhibit are connected by three teeth; one of them, being in one handle, engages between the two on the other handle in the same manner and subject to all the same laws of motion, and in its best and in its most practical form governed by precisely the same principles as one tooth of an ordinary spur-gear engaging between two teeth of another.

4 Q. Suppose that one of the teeth making the connection between the two handles of that exhibit to be broken out, how would you repair it so as to make it operate precisely as it does now?

Same objection.

A. There are two methods of making such repairs that are common in the shops; by one method we should cut a groove, of a dovetail form, in the body of the metal where the tooth was broken off, and make a new tooth of the same form of the original, and having a dovetail projection on the back, fitted and driven into the dovetail groove described. By the other method, which is more commonly used, we should drill one or more holes in the place where the tooth was broken off, and, driving or screwing pins in such holes, should then form the outer end as nearly as possible to the form of the original tooth.

375 5 Q. How long have these methods of repairing cog gearing in the shops been practised, to your knowledge?

Same objection.

A. In my experience, thirty-odd years.

6 Q. I place in your hands now another nipper, marked Defendants' Exhibit No. 20. Please to examine the gear connection between the handles of this exhibit and state, if you please, how it differs in principle, purpose, and practise from the gearing in Defendants' Exhibit Hall's No. 2 Nipper.

Same objection.

A. In principle and purpose I find no difference. In practise there is a slight difference in the method of construction, the tools used, etc.

7 Q. I place in your hands now another nipper, marked Defendants' Exhibit Hall's Pin-and-Hole Gearing. Please to examine the gear connection between the handles and state how it differs, if at all, in principle, purpose, and practical operation from the gearing between the handles in Defendants' Exhibit Hall's No. 2 Nipper. (Nipper referred to here is nipper made in 1884, for illustration.)

Complainant's counsel notes that this exhibit was made by defendants as an illustration.

Objected to as immaterial.

A. The only difference in the principle is in the fact that there is a

side guide supplied by the sides of the hole in which the pin engaged that prevents one handle from being taken off of its fulcrum without the other. Both handles must be removed at once. In the purpose there is apparently no difference. This is a crude
376 method of obtaining the same result. In the practical operation this is equivalent to portions of two gear where two teeth of one gear have been cut off at the pitch line, and the one tooth of the other gear is reinforced by the metal of the body of the handle up to the pitch line.

8 Q. Referring now to the different forms of gearing between the handles of all three of the exhibits shown you, state whether each of them illustrates different forms of gearing well known in mechanics.

Same objection.

A. They do.

9 Q. How long have you known such forms of gearing in use?

Same objection.

A. Thirty-odd years.

10 Q. I place in your hands a book entitled Principles of Mechanics, by Robert Willis, M. A., F. R. S., published by Longmans, Green & Co., London, 1870. Please take it and state if you find the different forms of gearing in this book contained in these several nippers.

Same objection.

A. I find on page 45 a gear made by cogs inserted into holes in general construction agreeing with Defendants' Exhibit No. 20; also, on the same page, illustrations of gearing similar to Defendants' Exhibit Hall's No. 2 Nipper. On page 51 I find an illustration of two wheels, the teeth of one wheel being made by pins inserted and projecting from the face of the wheel, which pins engage in holes in the face of another wheel. This is as near the style of Defendants' Exhibit Pin-and-Hole Gearing as a mechanic would naturally make in using wood in the place of the iron of the exhibit.

377 Book referred to offered in evidence for the purpose of illustrating the state of the art, complainant's counsel admitting that the book was published as of the time mentioned on the title page.

Complainant's counsel objects to the admission of any portion of the book above cited, as in no way relating to the invention in question in this suit or of the state of the art of making the nippers patented.

Book marked Defendants' Exhibit Willis' Principles of Mechanism, J. E. B., Sp. Ex'r, May 31, 1884.

11 Q. I place in your hands two skeleton models, marked Johnson's Exhibit C and Johnson's Exhibit D. Assuming, now, the model D to be given to a skillful mechanic with instructions to make a connection between the handles like that shown in model

C, what, if any, invention would there be in making such connection?

Objected to as not containing any facts proven in this suit; and it having been sworn by Thomas G. Hall that he never saw either of these exhibits until produced in the interference case, the hypothetical question is not based on anything in this case, and is, therefore, immaterial and irrelevant.

Question withdrawn on the ground that neither of the exhibits referred have yet been put in evidence in this case.

Direct examination of witness closed.

Cross-examination by Mr. BARNARD:

12 X Q. You have been shown three exhibits containing
378 gearing—Defendants' Exhibits Hall's Pin-and-Hole Gearing, Defendants' Exhibit No. 20, and Defendants' Exhibit Hall's No. 2 Nipper. Which of the three exhibits is the most practically useful as a model for manufacture and sale to others for use?

A. I should say the Defendants' Exhibit Hall's No. 2 Nipper.

13 X Q. If a man had made Defendants' Exhibit Hall's Pin-and-Hole Gearing, would he, if a mechanic, fail to see the practical purpose and utility of the gearing?

A. I think not.

14 X Q. If he desired to make nippers with a gearing between the handles would he not make them himself with that gearing; and, if not, why not?

A. If he desired to make nippers with gearing between the handles himself, his choice of what kind of gearing he made would be largely influenced by the means and tools at hand. This gearing of the pin-and-hole form can be easily made in almost any shop and applied to nippers that may have been made without any gearing between the handles. The same is true of the gearing shown in Defendants' Exhibit No. 20. These can be made of such material and with such tools as may be found in all machine shops.

Defendants' counsel notes in the record that the witness is stopped in his answer by complainant's counsel, and to which defendants' counsel objects and requests the magistrate to instruct the witness to go on and answer the question as he was about to answer it.

Complainant's counsel states that the so-called stopping the witness consisted in calling the witness' attention to the fact that the question related to Exhibit Hall's Pin-and-Hole Gearing at witness' suggestion.

379 (Witness continues:) While the gearing shown in the Defendants' Exhibit Hall's No. 2 Nipper must be provided for in the original construction of the handles, and is not so easy to make as the other mentioned, in shops where they have no milling machine or shaper.

15 X Q. Would a person, being a good mechanic, who had made Defendants' Exhibit Hall's Pin-and-Hole Gearing get another per-

son to make a gearing with pins between the handles like Defendants' Exhibit Nipper Handles—would he not have skill and knowledge enough of the art to make the latter himself?

Complainant's counsel notes that the defendants' counsel made objection to complainant's counsel speaking to witness at the exhibition of the two exhibits to witness, and that witness after long hesitation answers.

A. I should say he might both employ another person to do it and also have the knowledge and skill necessary to do it himself, the question of employing assistance being governed by the amount of his time and money.

16 X Q. If a mechanic made Defendants' Exhibit Pin-and-Hole Gearing would he consider Defendants' Exhibit Nipper Handles an advance in the art of making nippers with gears?

A. Some would and some would not.

17 X Q. As an expert, what would you consider it?

A. Of the two as shown I should prefer the pin-and-hole gearing.

18 X Q. If a mechanic had once made the nipper with the pin-and-hole gearing would he not readily make others like them?

A. I should suppose that he could.

19 X Q. Would not a good mechanic perceive the superior value of the pin-and-hole gearing?

A. He might or he might not.

380 20 X Q. If a good mechanic had made a nipper with the pin-and-hole gearing so that it would work practically would he not see the value of it?

A. He would probably see a positive value to it. He might not see its comparative value over some other form of gearing.

21 X Q. If he was seeking to produce a nipper with a gearing between the handles would he not reproduce the pin-and-hole gearing?

A. He would, probably, unless he thought he could do better.

22 X Q. If a good mechanic had made a nipper with the pin-and-hole gearing would he not preserve it as a model if he was engaged in making nippers?

A. That is doubtful. Some men are in the habit of preserving such models and some are not.

23 X Q. If a good mechanic, who had made a nipper with the pin-and-hole gearing, was seeking to invent a nipper with gearings between the handles, would he not describe the pin-and-hole gearing made by him, if giving instructions to another to embody his idea?

A. In my experience in such cases, I should judge that men were about equally divided; the one-half of them explain to me what they have done; the other half wait until I have reinvented their old inventions before saying anything about them.

Adjourned until Friday, June 6, 1884, at 1 p. m.

NEW YORK, *June* 6, 1884—1 p. m.

Parties meet pursuant to adjournment.

Present: Same counsel, same witness.

Cross-examination continued:

24 X Q. What experience or knowledge, if any, have you of the manufacture for sale of nippers for cutting metal?

381 A. I have built some machines for cutting metal. I don't know that I ever made any hand nippers. I don't say that I haven't. I have had no experience of manufacture for sale. I have had considerable knowledge of the manufacture for sale of cutting nippers.

25 X Q. Where and when did you gain this knowledge? Name the place.

A. Some of it in the shops in New York: Smith & Garvin, then Hague street, from 1867 to 1870; Freeland Tool Works, in West Thirty-fourth street, from 1870 to 1881; shop in Greene street that was run by Jose Navarro; shop of Benjamin Arnold, in East Greenwich, R. I., from 1853 to now. I could give an additional list.

26 X Q. Did you ever see in any of these shops any cutting nippers with a gearing between the handles opposite the fulcra and spring to throw open the cutting jaws, held in place by lips projecting as in the nipper shown you and marked "Defendants' Exhibit Hall's No. 2 Nipper," made in any of those shops?

A. I don't recollect that I did.

27 X Q. Did you ever see a nipper called the "Kennedy nipper," or the drawing thereof annexed to the letters patent therefor?

A. I do not know any by that name.

28 X Q. Did you ever see a hand nipper with gearing and spring, as described in X Q. 26, before you were called as a witness in this case; and, if so, where and when did you see it?

A. I don't know that I ever did, or whether I did or not.

Redirect examination by Mr. BROADNAX:

29 R. D. Q. What, if any, experience have you had in aiding inventors to put in practical condition their several inventions?

Objected to as immaterial and irrelevant.

382 A. I have within the last thirty years been frequently called upon to assist inventors by suggestions, by drawing, by superintendence, by hand-work, and by decision as between two different plans that they might bring forward for approval.

30 R. D. Q. What is the usual course pursued by inventors—not skillful workmen—in bringing their inventions from the conception to a practical condition?

Objected to as immaterial and irrelevant, and also because defendants have produced testimony to show that Thomas G. Hall, who claims to have been the inventor, was a skillful mechanic and workman.

A. The usual course is to employ a mechanic to work under their direction or the direction of some person capable of understanding their descriptions, and of making drawings and explaining the same, and having some judgment in regard to the matter in hand.

31 R. D. Q. Assuming an inventor to bring you this nipper, Defendants' Exhibit No. 8, old nipper, having no gear connection between the handles, and say to you, as an expert mechanic, familiar with different sorts of gearing, "I have conceived the idea of connecting the handles of this nipper with a gearing and want to see how it will work when so connected, and I want you to make such gear connection sufficient for the experiment." What kind of a gear connection would you naturally make to try the experiment, being left to your own devices?

Objected to because there is no proof of any such instructions ever having been given as is shown in the portion of the question marked as quotation, and what this expert witness might or might not do is totally irrelevant and immaterial.

A. The simplest and shortest way of trying the experiment,
383 I should say, I would drill a hole in each handle and put a pin in one hole that would work in the other.

32 R. D. Q. Assuming the experiment to be satisfactory and you are thereupon directed, as a skilled workman, to proceed and make a nipper having its handles geared together according to the best plan known to you, and you thereupon make a nipper having its handles geared together the same as in Defendants' Exhibit Hall's No. 2 Nipper, what, if any, new invention would you have made in producing such nipper?

Objected to because there is no proof of any such instruction as shown in R. D. Q. 31 or direction as in this question, and as calling for witness to assume the province of the court.

A. None.

33 R. D. Q. Assuming, now, the gearing between the handles to be a novel feature in the nipper, who, in your opinion, and according to the usage in such cases, would be the inventor of such feature under the circumstances mentioned in my last two questions?

Same objection as to the last two questions.

A. The man who gave me the order.

34 R. D. Q. Please give the number and date of any patent you may have taken out for gearing or other machinery.

Same objection.

A. I have the numbers and dates of gearing patents here. (Witness reads from memorandum.) Tool for cutting teeth of metal gear wheel, 274,860, March 27, 1883; bevel gear, 274,862, March 27, 1883; teeth of gearing, 274,861, March 27, 1883; reissued, 10,381, September 11, 1883; a patent for bending and metal sheet—don't remember date and number—and various others.

384 Recross by Mr. BARNARD:

35 R. X Q. If, after an invention had been made and patented, a person should claim to have invented the same thing, on the strength of certain drawings made by him and another, and should testify that he had never shown these drawings to the maker and patentee, of the invention, and also that he had never given any personal instruction to the maker and patentee which of these two, the patentee or the claimant, after the patent, would you decide was the inventor, bearing in mind that the claimant had never made a practical machine with the invention claimed?

Question objected to on the ground that it assumes a state of facts not found in the record.

A. Both. The evidence stated is not sufficient to throw one over for the other, for many things have two or three inventors at different times and places.

36 R. X Q. I place in your hands Defendants' Exhibit No. 7, Hall's patent of November 5, 1878, and ask you if after a person who invented that nipper and invented a pin-and-hole gearing for the nipper shown on that patent drawing, he would employ a skilled workman to reproduce that nipper without gearing?

A. He might or he might not, according to his fancy.

37 R. X Q. Assuming that he was a manufacturer of nippers for sale, and that the nipper shown on Defendants' Exhibit No. 7, Hall's patent of November 5, 1878, had proved a failure because the jaws would not work consimultaneously, would such a person, if he knew of a gearing, employ a skilled workman to reproduce the nipper shown in the patent without a gearing?

Objected to upon the ground that it assumes a state of facts not shown in the record.

385 A. According to my experience the manufacturer for sale would probably be governed in his action by his estimate of the market. If he thought that an inferior article would pay him more profit than a superior one he would probably manufacture the inferior one. In one instance I recollect a man buying a patent of a superior article and locking it up, saying: "That would supersede what I am now manufacturing; my present patent will run out at such a time, then I will bring out the better article, which will have some years longer to run."

38 R. X Q. The question repeated, with this addition: Assuming that the manufacturer had made six or seven dozen without the gearing, which were not sold, would he, if he had known of the gearing, have reproduced the unsalable article? Would he not, if a skilled workman himself in this special art, have put in the gearing himself?

A. I should not expect him to manufacture an unsalable article in any case. Whether he would improve that article for the purpose of making it salable would depend upon his judgment in regard to the market therefor.

39 R. X Q. If the manufacturer and skilled workman was wholly engaged in the manufacture of nippers for sale and knew of the means of making his unsalable nippers salable, do you not think he would do so?

A. I should expect him to.

40 R. X Q. If he knew of the defect of his nippers and had a shop with tools and workmen would he, if he knew how to cure that defect, wait for four months and then employ others to cure that defect?

A. It is uncertain. Some men move slowly in making changes and some move faster; there is no rule about it.

41 R. X Q. If, during these four months his factory remained idle because of the defect in his nippers, would he not at least make an attempt or experiment upon a pair of his nippers to cure that defect which he could show to others?

386 Objected to on the ground that the question assumes a state of facts not shown on the record.

A. Probably he would.

42 R. X Q. If such a person never made such an experiment, never showed to any one who had a part in producing the invention either a model or a drawing, and never could repeat any of his directions or instructions to the party whom he says in turn instructed the maker and patentee of the invention, would you now say that such a person was the inventor of that invention, after looking at Defendants' Exhibit No. 7, Hall's patent of November 5, 1878.

Same objection.

A. I should say that he was probably not the inventor.

Redirect by Mr. BROADNAX:

43 R. D. Q. I place in your hands Defendants' Exhibit Kennedy Nipper, in which, you will perceive, there is a gearing between the handles. Now, with that drawing in your hands, as a skillful mechanic, what invention would there be in putting a gearing between the handles of the nipper Defendants' Exhibit No. 7, Hall's patent of November 5, 1878?

Objected to as immaterial.

A. None whatever.

ALOHA VIVARTTAS.

Signed and sworn to before me this 6th of June, 1884.

J. EDGAR BULL,
Notary Public and Special Examiner.

387 Defendants' counsel offers in evidence certified copy of the file wrapper, contents, and drawing in the matter of the letters patent granted to Moses C. Johnson, assignor to Henry G. Thompson, October 5, 1880, and the same is marked "Defendants'

Exhibit Johnson's File Wrapper and Contents, J. E. B., Sp. Ex'r, June 6, 1884."

Also certified copy of the record of the decision of the examiners-in-chief in the matter of the interference, Thomas G. Hall *vs.* Moses C. Johnson, improvement in nippers, and the same is marked "Defendants' Exhibit Decision of the Examiners-in-Chief, J. E. B., Sp. Ex'r, June 6, 1884."

Objected to as overruled and set aside by the decisions of the Commissioner of Patents and the Secretary of the Interior on appeals respectively had by the parties.

Also, to show the state of the art, printed copy of specification and drawing of patent granted to Jacob D. King December 8, 1884, No. 157,610; same is marked Defendants' Exhibit King's Patent, J. E. B., Sp. Ex'r, 6 June, 1884.

Objected to as improper, save as matter of argument.

Also printed copy of specification and drawing, as part of the state of the art, of patent granted to F. C. Leypoldt April 16, 1878, No. 202,446; same marked Defendants' Exhibit Leypoldt's Patent, J. E. B., Sp. Ex'r, 6 June, 1884.

Also, for the same purpose, printed copy of specification and drawing of patent granted to John Hellwig March 6, 1877, No. 188,133; same marked Defendants' Exhibit Hellwig's Patent, J. E. B., Sp. Ex'r, 6 June, 1884.

Also, as part of the history of the Hall nipper, printed copy of specification and drawing of a reissue of his patent dated
388 Nov. 5, 1878, said reissue being No. 10028, dated Feb'y 7, 1882; same marked Defendants' Exhibit Hall's Reissue, J. E. B., Sp. Ex'r, 6 June, 1884.

Objected to as irrelevant, immaterial, and improper in this case and at this stage of the case.

It is stipulated that the foregoing testimony be regarded as having been taken in due time, and that the testimony of James Kennelly, as printed — Complainant's Interference Record, may be copied into this record as though taken orally before the examiner herein.

AMOS BROADNAX,
Defendants' Solicitor.
HORACE BARNARD,
Complainant's Solicitor.

Defendants' testimony is hereby closed, subject to the reservation of putting in as an exhibit the record of a certain application for a patent filed by Thomas G. Hall, one of these defendants, for improvement in nippers, subsequent to October 5, 1880, subject to all legal objections thereto on the part of complainant.

Adjourned to Friday, June 13, 1884, at one o'clock p. m., at same place.

Pursuant to the stipulation of June 6, 1884, between counsel of the respective parties hereto, the following deposition of James Ken-

nelly, sworn to before J. Edgar Bull on the 27th day of May, 1882, in the matter of the interference then pending in the United States Patent Office between the application of Thomas G. Hall and the patent granted to Moses C. Johnson, dated October 5, 1880, for cutting nippers, is made a part of defendants' record in this cause:

1 Q. What is your name, age, residence, and occupation?

389 A. My name is James Kennelly; my age is forty-nine years; I reside in Hartford, Connecticut; am employed by the Colts Patent Fire Arms Manufacturing Company.

2 Q. State whether you are acquainted with Thomas G Hall, James M. Adams, and Moses C. Johnson.

A. I am acquainted with all three.

3 Q. State whether the Colts Patent Fire Arms Manufacturing Company have done any work for the Interchangeable Tool Company; and, if yea, please to state the nature of the work.

A. They have made some dies for handles and jaws for nippers, and paid me for doing the labor on the same.

4 Q. State whether or not the Colts Patent Fire Arms Manufacturing Company made or caused to be made the dies in which the drop forgings are made for the No. 2 nipper of the Interchangeable Tool Company.

A. The superintendent directed me to make them, and I made them, and the Colts Company paid me for them.

5 Q. Please examine the nipper I now show you, marked Hall's Exhibit No. 10, and state if you recognize it as the No. 2 nipper of the Interchangeable Tool Company for which you made the forgings.

Question objected to as informing witness what the article is.

A. I do recognize it from external appearance, and as an article that could be finished from the forgings I furnished that company.

6 Q. Please state whether or not you were furnished by the Interchangeable Tool Company or any of its officers at any time a model from which you made the dies or caused them to be made into which the drop forgings for the No. 2 nippers were made.

A. Yes, sir; they have furnished me a model, so that I could forge a piece to finish the size that they have furnished me.

390 7 Q. Please state whether or not you made or caused to be made the dies in which the forgings of the No. 2 nipper are made.

A. I made part myself and caused my employees to make other parts.

8 Q. Please examine the forging I now show you and state if you recognize it as one of the handle forgings for the No. 2 nipper made in the dies to which you have referred.

A. I do; I believe I have either given it to Gustam or sent it by express to the Interchangeable Tool Company. I haven't seen it for probably a year or more.

9 Q. State, if you please, whether that forging is the same as the forgings you now furnish the Interchangeable Tool Company, and have been furnishing it, for the handles of their No. 2 nipper.

A. They are; they might possibly vary $\frac{1}{3000}$ or $\frac{1}{5000}$ of an inch in thickness, but substantially they are the same.

Forging offered in evidence and marked Hall's Exhibit "Drop Forging," J. E. B., notary public, May 27, 1882. (Said exhibit offered in evidence in this cause and marked Defendants' Exhibit Drop Forgings, J. E. B., Sp. Ex'r, June 6, 1884.)

10 Q. State, as near as you can recollect, when it was that you made or caused to be made the dies in which these forgings were made.

A. In May or June, in 1879. The Colts Patent Fire Arms Manufacturing Company credited them to me in July, 1879.

11 Q. Are you certain that these dies were made by you in May or June, 1879?

A. I am positive that they were made in May or June or the fore part of July, or they would not have been credited to me in July, 1879.

12 Q. State, if you recollect, who it was gave you directions to make these dies.

391 A. Mr. Lord, superintendent, through Mr. Hall, who was present. Mr. Lord told me to do as Mr. Hall directed; I refer to Mr. Thomas G. Hall.

13 Q. State whether or not Mr. Thomas G. Hall did explain to you then how he wanted the dies and forgings made.

A. He did, and I made them according to his directions.

14 Q. Please to state whether Mr. Hall showed you a model from which he wanted you to make the dies.

A. He did, and it was in the Colts Patent Fire Arms Company's possession yesterday when I left the shop.

15 Q. Please to state whether or not that model has a cog connection between the handles.

A. The model had what we considered a male and female handle; it had a tooth connection between the handles; the same forgings intended to make both male and female handle.

16 Q. State whether or not that model was the model of a complete nipper or the model of the handle only.

A. I have seen the model of the complete nipper before the superintendent instructed me to anneal the dies and resink them according to Mr. Hall's directions.

17 Q. Please state whether or not Mr. Hall was recognized at the works of the Colts Patent Fire Arms Manufacturing Company as the authoritative head of the Interchangeable Tool Company, for which this work was done.

A. I believe he was; the superintendent gave me orders to do work according to his directions.

18 Q. When you say that the model from which you sunk these dies is in the possession of the Colts Patent Fire Arms Manufacturing Company do you refer to the model from which you made the original dies or the model from which you altered the die?

A. I refer to the model from which I made the original dies.

19 Q. And have you also got the model from which you
392 altered the dies to enable them to make the tooth connection between the handles?

A. I believe I have.

20 Q. And was it in May or June, as I understand you, that the alteration was made?

A. It was.

21 Q. State what, if any, experience you have had in working with milling tools?

A. I have made them and worked with them, more or less, for the past ten years.

22 Q. State whether or not, in your opinion, any competent workman would take a model to set his milling tools by in manufacturing any article after a model.

A. Certainly; he would set his milling tools to his model, but he would not mill the model.

23 Q. Would he, in setting his milling tools, run the milling tools over the model, so as to leave the marks of the milling tools upon the model?

A. Certainly not; any man would be discharged if he did that; it would have to be through carelessness or ignorance.

24 Q. State whether you have ever seen a tool-maker treat his model tool in that way.

A. I never have or never heard of it.

25 Q. Please to look at this model, marked Johnson's Exhibit C, and state whether you have seen it before to-day.

A. No, sir; I have not.

26 Q. Mr. Moses C. Johnson swears, in his testimony in this case, that the jaws of that model constitute the model jaws of the No. 2 nipper of the Interchangeable Tool Company, and he swears that he made them, and that he used them to adjust the milling tools by, and that in so doing he run them through the mills so as to leave the mark of the milling tools on the outside and inside of one of the jaws, the one marked with the letter W on its side. Now, please to state whether, in your opinion, Mr. Johnson would use his model in that way.

393 A. My opinion is that Mr. Johnson is too good a mechanic to do anything of the kind.

Cross-examination:

27 X Q. Will you please examine carefully the marks of a milling tool on one of the jaws of Exhibit C and say whether you think that those marks are merely scratches made by a milling tool coming in contact with the jaw or whether the jaws was milled into its present shape.

A. That would be impossible for any man to decide—whether that comes from the machine milled with one three-hundredth of an inch or one three-thousandth of an inch. It is evident that milling marks are on the edges of the jaw at present, and it has the appearance of being milled to conform to its present shape.

28 X Q. Are there not points on the outside near the cutting edge, on the inside near the middle of and towards the rear of the lever, where the mills do not appear to have touched and the file marks still remain?

A. There are, but whether they were filed before milling I am not capable of judging.

29 X Q. Did you make the original dies that you say were altered over in May or June, 1879, by Mr. Hall's direction?

A. I didn't do the whole work, but they were made under my direction and partly by myself, and I was paid by the Colts Company for them.

30 X Q. About what date were they made?

A. Prior to September 30, 1878, for I got paid for them by the Colts Company in October following.

31 X Q. Since May, 1879, have you made or altered over any dies for the jaws of the Interchangeable Tool Company's nipper No. 2?

A. I have altered dies, but I can't tell at what time, for the Colts Company didn't pay me anything for it. It didn't cost me anything. The dies were worn so that I had to resink them, and it required no extra expense to resink them in a new shape.

394 32 X Q. About how long was it, to the best of your recollection, after you made the alterations in the handle dies that you made the alteration in the jaw dies?

A. To the best of my recollection, the alterations were made at the same time—that is, prior to July 30, 1879.

33 X Q. Did you have a model to work from or were the alterations made by descriptions and instruction?

A. Best of my recollection is I had a model.

34 X Q. Please describe the teeth which I understand you to say were on the model from which the original dies were made.

Counsel for Hall objects, as the witness has not said there were teeth in the original dies.

A. There were no teeth in that model; therefore I could not describe them.

35 X Q. I will read you Q. and A. 15 and 16 of your direct examination. (Counsel reads questions and answers referred to.) What model do you refer to in those answers?

A. The first model had no teeth; the second model had a tooth. Mr. Hall showed me a model at first, for which I made dies to forge parts to finish like sample. He afterwards brought me a model to alter the dies, so as that they would make forgings to finish like the model he had then.

36 X Q. Which model do you mean to say is now in the possession of the Colts Patent Fire Arms Company, to your knowledge. I mean the one that was there when you left yesterday—the one with the teeth, or the one without?

A. The one I saw yesterday is the original model, but I believe the other is there. I made it my business to look for the original models of three sizes, Nos. 1, 2, and 3.

37 X Q. Do you mean by the original model the one without the teeth?

395 A. The original model No. 1 has got the teeth; the original model No. 2 has not got the teeth.

JAMES KENNELLY.

Sworn to and subscribed before me—

J. EDGAR BULL,
Notary Public and Special Examiner.

396 *Testimony Taken on Behalf of Defendants under Order of Court.*

U. S. Circuit Court, Eastern District of New York.

HENRY G. THOMPSON *vs.* THOMAS G. HALL *et al.*

APRIL 15TH, 1885.

Appearances: Mr. Barnard, for complainant; Mr. Broadnax, for respondents.

ALOAH VIVARTTAS recalled.

Examined by Mr. BROADNAX:

Counsel for defendants calls upon counsel for complainant to produce Complainant's Exhibit Johnson's Exhibit C, and also Complainant's Exhibit Johnson's Exhibit D, to be used upon the examination of this witness.

Counsel for complainant states that both of these exhibits were exhibited in the interference case of Johnson *vs.* Hall, decided before the filing of the answers herein.

Q. Question 11 of your previous examination-in-chief is as follows: "I place in your hands two skeleton models, marked Johnson's Exhibit C and Johnson's Exhibit D. Assuming, now, this model D to be given to a skillful mechanic with instructions to make a connection between the handles like that shown in model C,
397 what, if any, invention would there be in making such connection or in carrying out such instructions?" That question was objected to and withdrawn upon the ground that the models were not then in evidence; the models having been since put in evidence, you will now answer that question.

Counsel for complainant objects to this examination as repetition and cumulative and unnecessary, for that the exhibits called for were proved as such, filed as such in the interference of Johnson *vs.* Hall, decided in favor of Johnson before the filing of the answer herein, and have been at all times with- the reach of defendants since their remission from the Commissioner's office.

The examiner, in the exercise of his discretion to note matters specially, considers it his duty to note that counsel in regard to the handing over of these exhibits misconducted themselves, and that he refused to go on with the examination until Mr. Broadnax had expressed his regret for the exhibition of temper made.

A. None whatever.

Q. Assuming the instructions to be to make the cog connection to consist of one tooth and one notch, to be formed by one cut of the milling tool, state whether or not there would be any invention in carrying out such instruction.

Objected to as repetition and cumulative and not surrebuttal.

A. There would be none at all.

Q. State whether or not it is a common practice in machine shops for the foreman to give such instructions to the workmen.

Objected to as incompetent, immaterial, and irrelevant.

398 A. It is.

Q. In carrying out such instruction, is there anything more required than the exercise of mechanical skill merely?

Objected to as calling for a conclusion of law.

A. No, sir.

Q. I place in your hands Defendants' Exhibit No. 2, drawing — Kennedy nipper; now, assuming you to be a skillful mechanic and told to take the Hall nipper as it appears in Defendants' Exhibit No. 7, Hall's patent of November 5, 1878, and connect the handles with gearing substantially the same as in the Kennedy nipper, state whether or not it would require the exercise of any inventive ingenuity to carry out such instruction.

A. It would not.

Q. What more would be required than the exercise of ordinary mechanical skill to carry out such instructions?

A. Nothing.

Q. Assuming that a pin gearing between the handles of the nipper, as it appears in Defendants' Exhibit 20, is shown to you or to any other skillful mechanic, state whether or not such gearing would not suggest to your mind and whether, in your opinion, it would suggest to the mind of any skillful mechanic, the idea of cutting the cog connection in the metal of the handle instead of forming it with pins.

Objected to as leading, incompetent, and immaterial.

A. It would.

Q. In the case supposed in my last question, what, if any, invention would there be in discarding the pins and in cutting the gearing in the metal with milling tools?

Objected to as incompetent.

A. None whatever.

399 Q. State whether or not it is a common practice in machine shops to make gearing with pins as it appears in Exhibit 20, and also with milling tools as it appears in Johnson's Exhibit C, where the gearing is cut in the metal itself.

Objected to as irrelevant, incompetent, and immaterial.

A. It is common to use pins in gearing as in Exhibit 20, and it is also to cut teeth in the solid gearing with milling tools.

Q. How long has it been common to make gearing as stated in your last answer?

Objected to as not shown that the witness knows anything beyond his general statement—immaterial.

A. As long as I have known anything about machinery—about forty years.

Q. Assuming that you have a nipper like Defendants' Exhibit 20, having short projections on the top of the spring, as in that nipper, to hold the spring in place, what, if any, invention will there be in extending the length of such projections until they come together when the nipper is closed?

Objected to as in no way surrebuttal; as repetition of respondent's original case, and based on an unauthentic exhibit.

A. In my opinion, none.

Q. State whether or not the length of the lips over the head of the spring depends upon the depth the spring seat is cut in the jaw.

A. It does.

Q. Please to produce any model you may have showing a shallow spring seat and short projections over the head of the spring.

Objected to as not surrebuttal; also as immaterial.

400 Model produced, which is offered in evidence for the purpose of illustrating his testimony, and the same is marked Defendants' Exhibit Vivarttas Model.

Objected to until the origin and date of making is shown, because in direct defence a large number of models were put in which turned out to have been made in 1884 as illustrations.

Q. The model you have produced in response to my last question—please to state when you first saw it and who gave it to you.

A. Yesterday; Mr. Broadnax gave it to me.

Q. Referring again to the same model, the upper end of the spring when the nipper is closed comes together. Now, assuming the spring seat to be cut to twice the depth it appears in this model, how would that affect the spring and the length of the lip over its upper end?

Objected to as irrelevant and immaterial.

A. The ends of the spring would not come close together, but the lips would project further than they do now.

Q. What additional value, in your opinion, would be added to the nipper by making the projections long enough to come together, or nearly so, over the top of the spring when the nipper is closed?

Objected to as irrelevant, incompetent, and immaterial.

A. None whatever.

ALOAH VIVARTTAS.

Subscribed and sworn to before me this 15th day of April, 1885.

B. LINCOLN BENEDICT,
Special Examiner.

No cross-examination.

401 THOMAS G. HALL recalled.

Examined by Mr. BROADNAX:

Q. I call your attention to Complainant's Exhibit Johnson's Exhibit C. Please examine it and state if you recognize it as the same model upon which you were examined when you gave your testimony in this case before.

Objected to as not surrebuttal.

A. I do.

Q. I read to you the following questions and answers of the testimony of James M. Adams. (Reads Nos. 56 and 57, examination-in-chief, p. 34 of the printed record.) State whether or not the answers to those questions are true or false.

Objected to, save as far as relate to himself.

A. As far as the answer refers to myself, it is an unqualified falsehood.

Q. I read to you also question and answer 62 of the same deposition. (Reads.) State whether or not that answer is true or false, so far as it relates to yourself.

A. It is false.

Q. I read to you also question and answer 63, same deposition. (Reads.) State whether that answer is true or false.

A. It is false.

Q. I read to you also question and answer 64 of the same deposition. (Reads.) State whether or not that answer is true or false.

Objected to.

A. The answer is false. I would like to qualify that. Extra forgings were made, but they were not made from this model, C.

Q. State, if you please, whether you ever saw that model, C, in the shop of the Interchangeable Tool Co.

Objected to as repetition and not in surrebuttal.

402 A. I never saw it there.

Q. I read to you question and answer 79 of the same deposition, p. 37 of the printed record. (Reads.) State whether or not, in view of the answer of Mr. Adams to that question, you still insist that the answer made to Q. 19 is true.

Objected to as repetition, not surrebuttal, and immaterial.

A. I do.

Q. I read to you question and answer 112 of Adams' deposition. (Reads.) State whether or not that statement is true or false.

Objected to as immaterial.

Printed record handed to witness.

Counsel for complainant objects to "coaching" the witness.

A. Never had any such conversation.

Q. I read to you also questions and answers Nos. 113 and 114.

(Reads.) State whether the answers to questions, so far as they relate to you, are true or false.

Objected to as immaterial.

A. They are false; I never conversed with Mr. Adams on the subject at all.

Q. I place in your hands Defendants' Exhibit Templates. Please state whether they are the same templates as those put in on your behalf in the interference.

Objected to, until shown whether they are the rejected templets or those used in the factory; further, that this is reopening and not surrebuttal.

A. They are the same.

Q. Please to state whether those are the same templates by which all your nippers were made during the time Johnson was in the employ of the Interchangeable Tool Co.

A. They are for that size of nipper, No. 2.

403 Q. Please to state whether these templates are now in the same condition that they were at the time Johnson was in the employ of the Interchangeable Tool Co.

A. They are, to the best of my knowledge and belief; I have never known of any change.

Q. Could any change be made in these templates without you knowing it?

Objected to for want of ground even of opinion.

A. Not while in the shop. I only referred to that subject since the templates have been out of my hands in the interference case.

Q. State, if you know, who made these templates?

Objected to as repetition and cumulative.

A. Mr. Whittlesey made them.

Q. Please to try those templets upon the jaws of the model, Exhibit C, and state whether or not they fit the model.

Objected to as repetition, and it has not been shown these were not the rejected templates.

A. They do not; neither of them does.

Q. State whether or not these templets would fit the jaws exactly if they had been made to conform to that model as a model nipper.

Objected to as leading, argumentative, and not in rebuttal.

A. They would, necessarily.

Q. At the time you commenced to manufacture the No. 2 nipper had all of the templets, dies, mills and milling tools appertaining to the manufacture of the No. 2 nipper been completed?

Objected to; not shown that witness knows.

Q. I refer now to the No. 2 nipper as put upon the market about July 1, 1879, as you have testified.

404 Objected to as leading.

A. They had.

Q. Please to describe or state, rather, the different steps taken in the production of the No. 2 nipper as manufactured by the Interchangeable Tool Company.

Objected to as irrelevant and incompetent.

A. The first step in producing the goods is to make the drop forging; next, the milling of the parts; following is the drilling of the holes; then the tempering, polishing, and assembling the parts.

Q. You don't quite understand my question. Please state whether or not in the production of this nipper you commence by first making a model nipper; then templets from that model; then dies from that model, in which the drop forgings are made; then mills and drills by the templets and milling-vise jaws to hold the parts during the operation of milling.

Objected to as leading, irrelevant, and immaterial.

A. Those are the first steps taken; in my previous answer I referred to the manufacture alone.

Q. Are all of the several parts of the nipper made interchangeable?

Objected to as not surrebuttal.

A. They are.

Q. State whether or not, in view of the interchangeable quality of the several parts of the nipper, it is necessary in its manufacture that all of the parts must be made to fit the templates and conform exactly to the model nipper through all the time of manufacture of the nipper.

Objected to as leading and immaterial.

A. Yes.

Q. During the time that Mr. Johnson was in employ of the Interchangeable Tool Co. what parts of the jaw were milled first?

405 Objected to; not shown that witness knows.

A. The top or outside part.

Q. What part was milled next?

A. The opposite or inside edge, where the cutting edge is.

Q. Do you know that of your own knowledge?

A. I do, positively.

Q. Referring now to Defendants' Ex. Milling-Vise Jaws, state whether or not it would be possible to mill the outside and inside edges of the jaw or nipper in these vise jaws after the sides of the nipper jaws had been milled.

Objected to as leading.

A. It is not possible, in my opinion.

Motion to strike out witness' opinion.
No cross-examination.

THOMAS G. HALL.

Subscribed and sworn to before me this 15th day of April, 1885.
B. LINCOLN BENEDICT,
Special Examiner.

Adjourned to April 18th.

406 APRIL 18TH, 1885.

Hearing resumed.
Same appearances.

DAVID L. HARRIS recalled.

Examined by Mr. BROADNAX:

Q. Are you acquainted with James M. Adams?
A. Yes.
Q. I read to you from the testimony-in-chief of James M. Adams, questions 56 to 58, inclusive, and their answers.

(Counsel reads: Counsel for defendant calls upon counsel for complainant to place Complainant's Exhibit Johnson's Ex. C in the hands of the examiner. Exhibit produced.)

Please to examine Complainant's Exhibit Johnson's Ex. C and state whether or not the answers I have read to you, in so far as they relate to you and the model in question, are true or false.
A. I can say that this model you call Johnson's model was never shown to me by Mr. Adams.
Q. State whether you ever saw that model in the shop of the Interchangeable Tool Co. in Hudson street.
A. No.
Q. State when you first saw that model.
A. The first time I recollect seeing it was in Mr. Barnard's office in the summer of 1884.

No cross-examination.

DAVID L. HARRIS.

Subscribed and sworn to before me this 18th day of August, 1885.
B. LINCOLN BENEDICT,
Special Examiner.

407 JAMES F. OLIVER recalled.

Examined by Mr. BROADNAX:

Q. Please to examine Complainant's Exhibit Johnson's Exhibit C and say when and where you first saw it.
A. I saw it first during the trial of the interference case, at Mr. Broadnax's office, in New York, on my examination.
Q. State whether or not you ever saw that model or any parts of it at the shop of the Interchangeable Tool Company, in Hudson street, New York.

A. I never saw the model there, and can identify none of the parts.

Q. I read to you questions and answers of James M. Adams' examination-in-chief in this case, questions 56 and 57.

Reads: Please to state whether the answers to these questions are true or false, in so far as they relate to you and to Complainant's Exhibit Johnson's Exhibit C.

A. As to my having seen this model there, they are not true. I have no recollection of having seen either of the parts. It is possible that I may have seen them without recollecting them.

(No cross-examination.)

J. F. OLIVER.

Subscribed and sworn to before me this 18th August, 1885.

B. LINCOLN BENEDICT,
Special Examiner.

Testimony closed.

B. LINCOLN BENEDICT,
Special Examiner.

408 United States Circuit Court, Eastern District of New York.

HENRY G. THOMPSON *vs.* THOS. G. HALL *et al.*

Before Hon. Chas. L. Benedict, district judge, holding the court.

MAY 29, 1885.

Cause called for hearing.

Horace Barnard, for complainant; Amos Broadnax, for defendants.

Cause argued and submit-ed.

409 *Opinion.*

JULY 24, 1885.

BENEDICT, *J.:*

This action is founded on letters patent No. 232,975, dated Oct. 5th, 1880, issued to Henry G. Thompson, assignee of Moses C. Johnson, for an improvement in cutting pliers. The bill charges infringement and prays for damages and an injunction.

The question at issue is whether the combination described in the plaintiff's patent, invented by Moses C. Johnson while an employee of a corporation styled the Interchangeable Tool Company, which corporation was engaged in the manufacture of cutting pliers under a patent issued to the defendant Hall, then the president of that corporation, —. In support of the averment that Moses C. Johnson was the first inventor of the combination in question, the plaintiff produces a model, known in the case as Defendants' Exhibit C, which model embodies the invention in question and

410 was made, as the plaintiff has sought to prove, while Johnson was in the employ of the Interchangeable Tool Company. On the other hand, the defendant- assert, and have sought to prove,

that this model was not made by Johnson while employed by the Interchangeable Tool Company, but after Johnson had been discharged from that employment, and for the purpose of supporting a fraudulent claim to an invention really discovered by the defendant Hall, put forth for the first time by Johnson after he had been discharged from the service of the Interchangeable Tool Company. In one aspect the decision of the case depends upon a question of time—that is to say, whether this model, Exhibit C, composed of brass and iron, was made when Johnson says it was, while he was a workman for Hall's company, or at a date subsequent
411 to Hall's discharge of Johnson. Upon this question much testimony has been taken on both sides. Upon a full consideration of all the evidence my conclusion is that Exhibit C was not made when Johnson says it was, but subsequent to Johnson's leaving the employment of the Interchangeable Tool Company, and that Moses C. Johnson was not the first inventor of the combination described in the patent issued to the plaintiff as assignee of Johnson. There must, therefore, be a decree dismissing the bill with costs.

412 United States Circuit Court, Eastern District of New York.
In Equity. On Bill, etc. May Term, 1885.

HENRY G. THOMPSON, Complainant,

vs.

THOMAS G. HALL, JAMES F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS, Defendants.

At a stated term of this court, held at the court-room, in the city of Brooklyn, in said district, in May, 1885.

Present: The Hon. Charles L. Benedict, district judge, holding said court.

This cause came on to be heard at the above term of said court and was duly argued by counsel, Mr. Horace Barnard appearing for complainant and Mr. Amos Broadnax for defendants; and thereupon, after full hearing of said cause and upon consideration thereof, it was ordered, adjudged, and decreed that the complainant's said bill of complaint be, and the same hereby is, dismissed with costs to the defendants, to be taxed.

CHAS. L. BENEDICT.

Endorsed: Decree. Filed in the office of the U. S. circuit court for the eastern district of New York this 1st day of October, 1885.

413 At a stated term of the circuit court of the United States of America for the eastern district of New York, in the second judicial circuit, held at the United States court-rooms, in the city of Brooklyn, on the 14th day of October, 1885.

Present: The Hon. Charles L. Benedict, district judge, holding the court.

HENRY G. THOMPSON, Complainant,
vs.
THOMAS G. HALL, JAMES F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS, Defendants. } In Equity.

A decree having been, on the first day of October, 1885, entered in this cause ordering, adjudging, and decreeing that the complainant's bill of complaint herein be dismissed with costs to the defendants, to be taxed, and pursuant to said order said costs having been taxed at the sum of seven hundred and ninety-eight $\frac{15}{100}$ dollars (798.15):

Now, on motion of Amos Broadnax, defendants' solicitor,
414 it is ordered that judgment be docketed against the said complainant herein in the said sum of seven hundred and ninety-eight $\frac{15}{100}$ dollars, and that execution issue therefor.

CHAS. L. BENEDICT.

Endorsed: Order for judgment. Filed and entered this 14th day of October, 1885.

415 Circuit Court of the United States, Eastern District of New York.

HENRY G. THOMPSON
vs.
THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, and DAVID L. HARRIS.

To the honorable the Supreme Court of the United States:

The appeal of the above-named Henry G. Thompson, complainant and appellant, respectfully showeth—

That upon the thirty-first day of March, 1883, the bill of complaint herein was filed in the circuit court of the United States for the second circuit and eastern district of New York against the above-named defendants, charging them with having wrong-
416 fully infringed certain letters patent of the United States owned by said complainant.

That subpœnas were duly issued on said bill and duly served; that said defendants duly appeared by Amos Broadnax, Esq., and on or about the 27th day of June, 1883, filed their answer denying priority of invention by Moses C. Johnson, the assignor of complainant; that said invention was not in public use and on sale with the consent and allowance of said Johnson before his application for patent, denying infringement, and justifying the acts of defendants as corporate acts of the Interchangeable Tool Company under letters patent of the United States No. 209,677, issued to Thomas G. Hall, one of the defendants, dated November 5th, 1878, under a claim of pior invention of the improvements patented to said Moses C. Johnson and under an implied license from said Johnson.

417 That the complainant duly filed his replication to said answer.

That thereafter testimony was duly taken for both sides, and thereafter, and at the May term, 1885, of said court, this cause came to be heard upon the pleadings, proofs, and all proceedings therein, and was argued by counsel, and thereafter his honor Charles L. Benedict, before whom the said cause was argued, rendered his decision in said cause, wherein he dismissed the bill of complaint with costs because "Exhibit C was not made when Johnson says it was, but subsequent to Johnson's leaving the employment of the Interchangeable Tool Company, and that Moses C. Johnson was not the first inventor of the combination described in the patent issued to the plaintiff as assignee of Johnson."

That thereafter costs were duly taxed in said cause against
418 the complainant in the sum of seven hundred and ninety-eight $\frac{15}{100}$ dollars, and thereafter and on or about the 1st day of October, 1885, the final decree was entered herein in favor of the defendants, dismissing the bill and awarding the said sum as costs against the complainant.

Wherefore the complainant appeals from the whole of said decree of said circuit court, and respectfully prays that the pleadings, proofs, exhibits, and decree in said cause may be sent to the Supreme Court of the United States without delay, and that the said Supreme Court proceed to hear the cause anew.

And that the said decree of said circuit court and every part thereof be reversed, and that a decree be made sustaining the said bill, and that the defendants be required to account with and
419 pay to the complainant the profits they have derived from said infringement and the damages they have caused the complainant by reason of said infringement, and also the costs of this complainant in this court and on this appeal, and such other decree as to the said Supreme Court shall seem just.

HORACE BARNARD,
Solicitor and of Counsel for Complainant & Appellant.

(Endorsed:) Petition of appeal. Allowed Oct. 19th, 1885. Chas. L. Benedict. Filed October 19, 1885.

420 *Bond for Damages & Costs.*

U. S. Circuit Court, Eastern District of New York.

HENRY G. THOMPSON, Appellant & Complainant,
vs.
THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD, & DAVID L. HARRIS, Joint Respondents & Defendants.

Know all men by these presents that we, Henry G. Thompson, George W. Walgrove, of No. 317 East 84th street, in the city of New York, and William Knoepke, of No. 335 East 18th St., in the city of New York, are held and firmly bound unto the above-named joint respondents and defendants in the sum of fifteen hundred and ninety-six $\frac{30}{100}$ dollars, to be paid to the said joint respondents and defendants; for the payment of which, well and truly to be made, we bind

ourselves and each of us, our and each of our heirs, executors,
421 and administrators, jointly and severally, firmly by these presents.

Sealed with our seals and dated the nineteenth day of October, in the year of our Lord one thousand eight hundred and eighty-five.

Whereas the above-named complainant has prosecuted an appeal to the Supreme Court of the United States in the above-entitled cause of Henry G. Thompson *vs.* Thomas G. Hall, J. F. Oliver, Samuel Leopold, and David L. Harris to reverse the decision and decree rendered in the above-entitled suit by the judge of the circuit court of the United States for the eastern district of New York:

Now, therefore, the condition of this obligation is such that if the above-named complainant shall prosecute his said appeal to effect and answer all damages and costs if he shall fail to make his said appeal good, then this obligation shall be void; otherwise the same shall be and remain in full force and virtue.

HENRY G. THOMPSON. [SEAL.]
GEORGE W. WALGROVE. [SEAL.]
422 WILLIAM KNOEPKE. [SEAL.]

Sealed & delivered and taken and acknowledged this 19th day of October, 1885, before me—

[L. S.] JOHN A. SHIELDS,
U. S. Com'r, N. Y.

UNITED STATES OF AMERICA,
Southern District of New York, } *ss:*

George W. Walgrove, being duly sworn, deposes and says that he is worth the sum of sixteen hundred dollars over and above his just debts and liabilities.

G. W. WALGROVE.

Sworn to this nineteenth day of October, A. D. 1885, before me—

[L. S.] JOHN A SHIELDS,
U. S. Com'r, N. Y.

UNITED STATES OF AMERICA,
Southern District of New York, } *ss:*

William Knoepke, being duly sworn, deposes and says that he is worth the sum of sixteen hundred dollars over and above his just debts and liabilities.

423 WM. KNOEPKE.

Sworn to this nineteenth day of October, A. D. 1885, before me—

[L. S.] JOHN A. SHIELDS,
U. S. Com'r, N. Y.

(Endorsed:) Bond for damages & costs on appeal to U. S. Supreme Court. Horace Barnard, compl't's proctor, 102 Broadway. Approved October 19, 1885. Filed & recorded October 19th, 1885. C. L. B.

33—186

424 United States Circuit Court, Eastern District of New York.
In Equity.

HENRY G. THOMPSON *vs.* THOMAS G. HALL *et al.*

I hereby consent that an order be entered in the above-entitled action directing the clerk of this court to transmit with the record on appeal each and all of the exhibits in the above action, and that each shall be certified by him as the original on file.

Dated New York, October 22, 1885.

AMOS BROADNAX,
Def'd'ts' Sol'r.

425 At a stated term of the circuit court of the United States of America for the eastern district of New York, in the second judicial circuit, held at the United States court-rooms, in the city of Brooklyn, on the 22d day of October, in the year of Lord one thousand eight hundred and eighty-five.

Present: The Honorable Charles L. Benedict, district judge, holding the court.

HENRY G. THOMPSON *vs.* THOMAS G. HALL *et al.*

On the annexed consent of Amos Broadnax, solicitor for the defendants in the above-entitled cause, and on motion of Horace Barnard, solicitor for the complainants, it is ordered that the clerk of this court transmit with the record on appeal each and all of the exhibits in the above action, and that each shall be certified by
426 him as the original on file.

CHAS. L. BENEDICT.

(Endorsed:) Order. Filed and entered this 22d day of October, 1885.

427 UNITED STATES OF AMERICA, } ss:
Eastern District of New York, }

I, B. Lincoln Benedict, clerk of the circuit court of the United States of America for the eastern district of New York, in the second circuit, do hereby certify that the foregoing pages, numbered from one to four hundred and twenty-six, inclusive, contain a true and complete transcript of the record and proceedings had in said court in the case of Henry G. Thompson against Thomas G. Hall, J. F. Oliver, Samuel Leopold, and David L. Harris as the same remain of record and on file in said office.

In testimony whereof I have caused the seal of the said court to be hereunto affixed, at the city of Brooklyn, in the eastern district of New York, in the second circuit, this 23 day of October, A. D. 1885, and of the Independence of the said United States the one hundred and tenth.

[The seal of the Circuit Court, Eastern District of New York.]

B. LINCOLN BENEDICT, *Clerk.*

428 *Citation Appeal.*

By the Hon. Charles L. Benedict, judge of the district court, holding the circuit court of the United States for the eastern district of New York, to Thomas G. Hall, James F. Oliver, Samuel Leopold, and David L. Harris:

Whereas Henry G. Thompson has lately appealed to the Supreme Court of the United States for the — second circuit and eastern district of New York made in favor of you, the said Thomas G. Hall, James F. Oliver, Samuel Leopold, and David L. Harris, in a suit in equity brought by him against you, and has filed the security required by law:

You are, therefore, hereby cited to appear before the said Supreme Court, at the city of Washington, on the 26th of October, 1885, next, to do and receive what may appertain to justice to be done in the premises.

Given under my hand at the city of Brooklyn, in the second circuit and eastern district of New York, the 19th day of October, in the year of our Lord one thousand eight hundred and eighty-five.

CHAS. L. BENEDICT.

Admission of service is hereby admitted.

AMOS BROADNAX,
Solicitor for Defendants.

429 [Endorsed:] Circuit court of the United States, eastern district of New York. Henry G. Thompson, appellant, against Thomas G. Hall, J. F. Oliver, Samuel Leopold, & David L. Harris, appellees. Original. Citation appeal. Horace Barnard, complain't's att., 102 Broadway, N. Y. city.

Endorsed on cover: E. New York C. C. U. S. No. 186. Henry G. Thompson, appellant, *vs.* Thomas G. Hall, J. F. Oliver, Samuel Leopold, and David L. Harris. Filed October 26, 1885.

SUPREME COURT OF THE UNITED STATES.

No. 186.

HENRY G. THOMPSON,
Appellant,

vs.

THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD and DAVID I. HARRIS.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF NEW YORK.

Brief and Argument for Appellant.

HORACE BARNARD,
Counsel for Appellant.

BURGOYNE QUICK PRINTING CO., COR. WALKER & CENTRE, N. Y.

IN THE

SUPREME COURT OF THE UNITED STATES.

HENRY G. THOMPSON,
Appellant,

AGAINST

THOMAS G. HALL, J. F. OLIVER, SAMUEL LEOPOLD and DAVID L. HARRIS,
Respondents.

BRIEF AND ARGUMENT FOR APPELLANT.

Statement of Case.

This cause was originally commenced in the Circuit Court of the United States for the Eastern District of New York, by complainant Henry G. Thompson, as a resident and citizen of Milford, Connecticut, by his bill of complaint in the usual form, against Thomas G. Hall, J. F. Oliver, Samuel Leopold and David L. Harris, residents of Brooklyn, New York, as infringers of the right to the combination described in the specication and shown in the drawings and claimed as

"The body composed of the side plates *a*, *b*, the "independent fulcra 2, 3, 4, 5, for the jaw levers and "hand levers, the jaw levers provided with cutting "edges and with *lips e*, and the hand levers having

" short arms *g' h'* and a prong and notch, *always in en-*
" *gagement*, as described," secured to him by Letters Patent of the United States No. 232,975, dated October 5, 1880, by making and selling nippers containing said combination in the City of New York without license (Record, pp. 1–5. See drawing No. 2 of complainant's Exh. 2d—opposite page).

The defendants severally verified and filed a joint answer on the 29th of August, 1883, in which they deny :

I. That Moses C. Johnson was the inventor of " *any* " *new and useful invention of an improvement in cutting* " *pliers* " such as are described in Letters Patent No. 232,975.

II. Admit the grant of the letters patent, repeat the first denial, and allege that *Johnson and complainant surreptitiously* obtained the patent.

III. Deny the assignment, and allege that if there was one it was obtained by covin to injure defendants.

IV. Allege that before the date of the application for Patent 25,000 or 30,000 of said Cutting Pliers were *publicly sold*, &c., with Johnson's consent.

Deny complainant's efforts to introduce the invention.

VI. Deny the infringement.

VII. Allege that the defendants are trustees of the Interchangeable Tool Company, organized in August, 1878, to manufacture cutting pliers *under Letters Patent of the United States No. 209,677, granted to Thomas G. Hall, one of defendants, November 5th, 1878* (See drawing of complainant's Exh. 4—opposite page).

That before said patent was issued (Nov. 5, 1878).

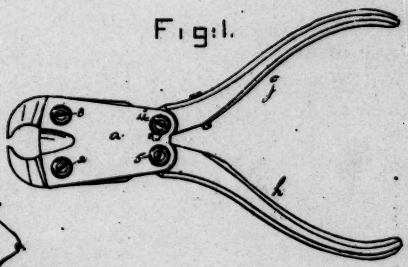
(No Model.)

M. C. JOHNSON.
Cutting Pliers.

62

No. 232,975. Patented Oct. 5, 1880.

Fig: 1.



No. 186.
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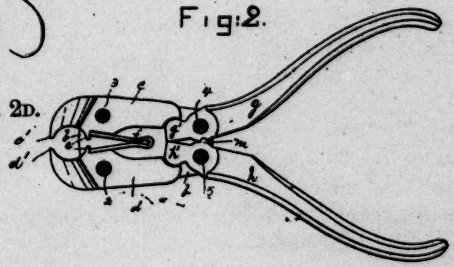
v.
Walldal.
p. 62

Fig: 2.



COMPLT.'S EXH. 2D.

WITNESSES-
A. Reynolds
L. F. Connor.

INVENTOR-
Moses C. Johnson.
by Crosby Gregory
Attys

146

Hall's Exhibit
No 7 - September
1881 W.H.B.

T. G. HALL.
Cutting-Nipper.

No. 209,677. Patented Nov. 5, 1878.

Fig. 1

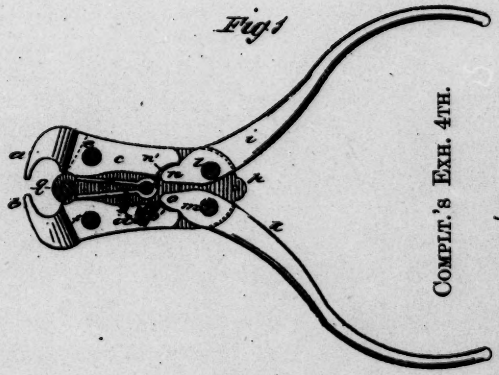


Fig. 2.

COMPLT.'S EXH. 4TH.

Thompson & Hall { Defendants' Exhibit No. 7, Hall's Patent of November 5, 1878
J. E. B. Sp. Ex. 7 Apl. 1884.

WITNESSES:
Francis McNeill
C. Sedgwick

INVENTOR:
T. G. Hall
BY Munn & Co
ATTORNEYS.

Hall invented certain improvements which he described to the officers of his company, that *thereupon* they caused a model to be made embracing said improvements.

That said Moses C. Johnson, *as a skilful workman*, was employed to make said model, and that said Johnson made it under the directions of Thomas G. Hall.

That said Johnson went into the employ of the company on *April 20th, 1879*, and was employed with other mechanics, &c. That said Johnson, when in the employ of the company made a model nipper for them. That he was discharged May 1, 1880. That during that period upwards of 30,000 of these cutting pliers were made by the company without any objection or notice of claim by him.

VIII. Said respondent, Thomas G. Hall, of his own knowledge," &c., swears that he was the first and original inventor of said original cutting pliers, and of said improvements, and assigned to the company.

IX. That Moses C. Johnson was dismissed for drunkenness, and that complainant and one Augustus Gustam conspired with Johnson and induced him to falsely claim he *was* the inventor, and for "*nominal consideration*" and "promises of future reward" to apply for and *surreptitiously obtain letters patent from the United States on the 5th of October, 1880*, for the said improvements.

That said Thomas G. Hall *having, prior* thereto, *obtained a patent in France therefor*, filed an application for a patent for the same improvements in the United States Patent Office, and thereby caused an interference to be declared to determine whether Johnson or Hall was the first and true inventor.

That said *interference is still pending.*

(N. B. It was decided in favor of Johnson at the time of filing the answer.)

The answer again denies the patentability of Johnson's improvements and pleads an *implied license from Johnson* to make and *sell under his patent* (Rec., pp. 6–10).

Replication was duly filed.

The cause being at issue, complainant proved his title to the invention (Complt.'s Ex. 1), the application for letters patent *therefor on June 2, 1880*, the grant of Letters Patent No. 232,975, dated October 5, 1880 (Compl.t's Ex. 2) to him, the infringement by the production of a pair of cutting pliers or nippers stamped "Hall Patent No. 2, Nov. 5, '78" (Complt's Ex. 3), and by the admission of defendants that they had continuously made the same since July, 1880, the deceptive and fraudulent nature of the stamp "Hall's Patent No. 2, Nov. 5, '78" by the production of Hall's Patent No. 209,677, dated Nov. 5, 1878 (Complt.'s Ex. 4), and the investigation into and decision, after a prolonged contest in interference, by the Commissioner of Patents in favor of the originality and priority of complainant's claim by Complt.'s Ex. "Interference Record" (*see Stipulation, p. 13 of Record*).

The utility of the invention is proved by the admission (Rec., 12).

At the conclusion of complainant's *prima facie* case defendants offered in evidence in support of the allegations of the answer the following exhibits:

1. Hall's Application, prepared by Broadnax, undated.
2. Defts.' Exh. No. 13, Prescott Letter, March 14, 1881.
3. Gustam's Claim, January 13, 1881.
4. Thompson's Claim No. 1, January 12, 1881.
5. " " No. 2, " " "
6. Thompson and Gustam's Plan, no date.

7. Rogers' Settlement with Thompson, April 20, 1881 (see Testy.).
8. Hall's French Patent, Feby. 20, 1880.
9. Decision of Examiners in Chief.
10. Johnson's File Wrapper and Contents.
11. No. 1, Johnson's Drawing, no date.
12. No. 9, Lead Pencil Sketch, no date.
13. Hall's Patent, May 14, 1867.
14. Kennedy Patent No. 148,566, March, 17, 1874.
15. King Patent, No. 157,610, Dec. 8, 1874.
16. Hellwig Patent, 188,133, March 6, 1877.
17. Luypoldt Patent, 202,446, April, 16, 1878.
18. Hall's Patent No. 209,677, Nov. 5, 1878.
19. Hall's Reissue No. 10,028, Feb. 7, 1882.
20. Johnson's Patent in Suit, 232,975, Oct. 5, 1880.

Also (see Printed Exhibit's Record).

Defendants' Exhibit Hall's Pin and Hole Gearing, made in 1884.

Defendants' Exhibit Hall's No. 1 Nipper Gearing, made in 1884.

Defendants' Exhibit Hall's No. 2 Nipper Gearing, made in 1884.

Defendants' Exhibit Hall's No. 6 Nipper Gearing, made in 1884.

Defendants' Exhibit Hall's No. 20 Nipper Gearing, August, 1879.

Defendants' Exhibit Hall's Vivarttas Model Gearing, April, 1885.

And examined—

First. WM. Q. JUDGE, attorney for The Interchangeable Tool Company in 1878 and 1879 (Rec., pp. 115–126).

Second. THOMAS G. HALL, defendant, director, &c., of The Interchangeable Tool Company, pianoforte maker and claimant of the invention (Rec., 126–188).

Third. JAMES F. OLIVER, defendant, director, &c., of said company and *petroleum broker* (Rec., 188–207).

Fourth. SAMUEL LEOPOLD, defendant, director, &c.,

of said company and dealer in fancy goods (Rec., 207–209).

Fifth. DAVID L. HARRIS, defendant, director, &c., of said company and bank teller (Rec., 209–217).

Sixth. HENRY S. ROGERS in 1880 director, &c., and assignee of said company (Rec., 217–228),

Seventh. ROBERT W. CRANE, model maker for said company at Harlem, N. Y., in 1878 (Rec., 228–232).

Eighth. ALAHO VIVARTTAS, architect, engineer and draughtsman (Rec., 232–241).

Ninth. JAMES KENNELLY, die maker for the Colts Patent Arms Company of Hartford, Conn. (Rec., 241–246).

At the conclusion of defendants' testimony for defense the complainant in *rebuttal* offered in evidence Complainants' Exhibit Johnson's Exhibit C; Complainants' Exhibit Johnson's Exhibit D; Complainants' Exhibit No. 6, Johnson's Exhibit A; Complainants' Exhibit No. 7; Complainants' Exhibit No. 8 (Printed Exhibit, Record),

And examined—

1st. JAMES M. ADAMS, *tool maker and superintendent* of the factory of The Interchangeable Tool *Company* from *April 14, 1879, to February, 1880* (Rec., pp. 15–56).

2d. ELBERT A. WHITTELSEY, *machinist* and *expert tool* maker in *the employ of The Interchangeable Tool Company from April 23, 1879, to January 4, 1880* (Rec. pp.56–74).

3d. Complainant, by stipulation, puts in evidence the depositions made November 19 and 28, 1881, of MOSES C. JOHNSON, claimant and inventor of the combination for which Letters Patent of the United States, No. 232,975, applied for June 2, 1880, were granted to him as assignor to Henry G. Thompson, the complainant, on the 5th of October, 1880 (Rec., pp. 74–114).

4th. Complainant offers in evidence the decision of

the Commissioner of Patents in the interference between Moses C. Johnson and Thomas G. Hall, and the decision of the Secretary of the Interior affirming that of the Commissioner (see Printed Exhibits).

Months after the conclusion of complainants' rebuttal evidence, the defendants on *April 15th, 1885*, under order of Court, as surrebuttal,

Re-examined—

A. *Alaho Vivarttas* to prove that no invention was shown in making Complainants' Exhibits C and D; that it is a common practice to make gearing with pins and also to cut gearing in metal with milling tools (Rec., pp. 246–249).

Defendants' Exhibit Vivarttas Model used as illustration.

B. *Thomas G. Hall* to contradict *James M. Adams* and to give testimony, objected to as not surrebuttal (Rec., 249–252).

C. *David L. Harris* to contradict James M. Adams (Rec., 252).

D. *James F. Oliver* to state where he first saw Complainants' Exhibit C, described as a model (Rec., 252–253).

The Circuit Court having heard the cause at final hearing, handed down the following opinion (Rec., p. 253):

"JULY 24, 1885.

"BENEDICT, J.:

"This action is founded on Letters Patent No "232,975, dated October 5th, 1880, issued to Henry G. "Thompson, assignee of Moses C. Johnson, for an *im-* "*provement in cutting pliers.* The bill charges in- "fringement, and prays for damages and an injunc- "tion.

"The question at issue is whether the combination

" described in the plaintiff's patent, *invented by Moses* " *C. Johnson* while an employee of a corporation styled " ' The Interchangeable Tool Company,' which corpo- " ration was engaged in the manufacture of cutting " pliers under a patent *issued to the defendant Hall*, then " the president of that corporation.

" In support of the averment that Moses C. Johnson " was the first inventor of the combination in question " the plaintiff produces a *model*, known in the case as " Defendant's (?) Exhibit C, which model embodies the " invention in question, and was made—as the plaintiff " has sought to prove—while Johnson was in the em- " ploy of the Interchangeable Tool Company.

" On the other hand the defendants assert and *have* " *sought to prove* that this model was not made by " Johnson while employed by the Interchangeable Tool " Company, but after Johnson had been discharged " from that employment, and for the purpose of support- " ing a fraudulent claim to an invention *really discov-* " *ered by the defendant* Hall, put forth for the first time " by Johnson, after he had been discharged from the " service of the Interchangeable Tool Company.

" In one respect, the decision of this case depends " upon a question of time—that is to say, *whether this* " *model, Exh. C, composed of brass and iron, was made* " *when Johnson says it was, while he was a workman* " *for Hall's Company, or at a date subsequent* to Hall's " discharge of Johnson. Upon this question much " testimony has been taken on both sides. Upon a full " consideration of all the evidence, my conclusion is " that Exhibit C was not made when Johnson says " it was, but subsequent to Johnson's leaving the em- " ployment of the Interchangeable Tool Company, and " that Moses C. Johnson was not the first inventor of " the combination described in the patent issued to the " plaintiff as assignee of Johnson. There must, therefore, " be a decree dismissing the bill with costs " (Rec., pp. 254–5).

In accordance therewith a decree was ordered dismissing the bill, from which this appeal is taken (Rec., 255).

Assignment of Error.

The Circuit Court erred:

FIRST. In dismissing the bill of complaint.

SECOND. In finding that Complainant's "Exhibit *C* was not made when Johnson says it was."

THIRD. In finding that Johnson made Complainant's Exhibit *C* subsequent to his leaving the employment of the Interchangeable Tool Company.

FOURTH. In finding that Johnson was not the first inventor of the combination described in the patent issued to the "plaintiff" as assignee of Johnson.

FIFTH. In finding that Complainant's Exhibit *C*, composed of template "Skeleton Jaws" and template brass handles was a "*model*," and not a "working movement" to show the invention of Johnson.

SIXTH. In finding its decision from a disputed date of making *one of the twin "skeleton jaws."*

Owing to the incoherent manner in which the testimony has been taken, the following analysis has been prepared to show its bearing and that of the exhibits, on the Points following.

The Evidence—First for Complainant.

The alleged Incorporation of Defendants.

This was in no manner proved. William Q. Judge, their attorney, and who gave them an "office" in his office, said that they were *organized* in August, 1878, but this was objected to as not proper proof of incorporation of *The Interchangeable Tool Company* (Rec., 116, Q. 7 and Obj.) This proof has never been supplied.

Their Bankruptcy.

Defendant Thomas G. Hall testified that the "*Company*" went into *bankruptcy in August, 1880*, and made *an assignment* (Rec., p. 164, x.-Q. 309) and defendant's witness, Henry S. Rogers, shows that this *assignment* was transferred to him, and in general that the parties now claiming to be the "Company" are not the original ones. Without incorporation there can be no *succession* and the personal *naked implied license* which defendants' claim is not transferable.

Hapgood vs. Hewitt, 119 U. S., 226.

Defendants by their own testimony appear to have been ambulant adventurers, without *knowledge*, *skill* or *capital*, and their last *factory* in 1878 to have consisted of "*a small part of a mere shanty of one story.*" Defendant Oliver (Rec., 200, x.-Q. 97) and Judge their attorney (Rec., 116, Q. 7).

M. C. Johnson's Capacity, &c.

All the testimony shows that Johnson was a "*good* tool-maker" (deft. Hall, Rec., 127, Q. 99, &c.), an "*expert*" (deft. Harris), and "an *extra good mechanic* and *tool-maker*" (Whittelsey), "*far superior to J. M. Adams,*" foreman of defendants, who was discharged for incompetency; but Thomas G. Hall says *John-*

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son was *intemperate during all the time* he was in defendant's employ, and was discharged for *intemperance and neglect* (Rec., 141, Q. 124).

Johnson was also shown to have been familiar with the state of the art and to have seen the Patent Office records, showing tools similar to nippers made with gear teeth between the handles. (Rec. 82, Int. 73).

Nothing the defendants said about Johnson's character tends to deprive him of the inventive faculty which the evidence shows he undoubtedly possesses.

Johnson's Drawings.

Defendants, by producing various drawings of machines made by him, have proved that Johnson was also a very capable mechanical draughtsman. See working drawing of No. 1 nipper, 4 in. long, to cut $\frac{1}{16}$ wire M. C. J. (Book of Exhibits, opposite page 60, marked "Hall's Exhibit" No. 1. W. H. B., Aug. 10, 1881).

At Circuit the complainant, in support of Johnson's claim to be the first and original inventor of the **combination** hereinbefore described, put in evidence his U. S. Letters Patent No. 232,975, and proved the date of Johnson's application therefor as June 2, 1880, and of its issue as October 5, 1880.

It is *Complainants Exh. 2d.* **"Deft.'s Exh. File Wrapper** and Contents" showed that this patent was only granted after severe examination.

Complainant also put in evidence the printed book **"Exhibit Interference Record"** (between Johnson and Thomas G. Hall on this same matter) to show that Johnson's claim had been a second time exhaustively examined.

Rec., pp. 13, 14. Book of Exhibits 194, p. 76.

The decision of Hon. H. M. Marble, Commissioner of Patents, rendered May 28, 1883, sustaining Johnson's claim. (Book of Exhibits, p. 78, &c.).

The decision of Hon. H. M. Teller, Secretary of the Interior, on the appeal by Thomas G. Hall from the Commissioner's decision, affirming it.

Book of Exhibits, p. 77, &c.

Complainant's Exhibit 3d, a nipper **made by defendants in 1880,** and **their admission "that they have manufactured this nipper Exhibit 3d, and similar nippers containing similar combinations since July, 1880, and** are still manufacturing the same in the City of New York (Rec., p. 12).

Defendant Hall's Patent, No. 209,677, dated November 5, 1878, as **Complainant's Exhibit 4,** to show Hall's extent of invention and the difference in the nippers.

Complainant's Exhibit 5.—A Metallic Nipper made by defendants in 1884 to show variaton in the shape of *mill cuts.*

Complainant's Exhibit No. 6.—A circular issued by Thomas G. Hall as President of The Interchangeable Tool Co., in 1879, to show by its drawings and descriptions what was their standard nipper up to April or May, 1879 (Book of Exhibits, p. 9).

Complainant's (Johnson's) Exhibit B.—A "Revere House card" showing a sketch of rounded *prong and notch gearing* made by Moses C. Johnson in October, 1878.

(Badly reproduced in Book of Exhibits, p. 13).

Complainant's Exhibit D.—A model of brass and iron made by James M. Adams in May, 1879.

Defendant's Exhibit C.—A metallic **"working movement"** made by Moses C. Johnson between May 10 and 20, 1879, to show his two principal improvements.

The deposition of Moses C. Johnson taken in the interference in November, 1881, and read in evidence under stipulation (Rec., p. 74, Stipulation).

And **in rebuttal** examined **James M. Adams** and **Elbert A. Whittelsey.**

Counsel is obliged to spread much of all the testimony on his brief, but it is necessary to show that there is no *evidence* sustaining the Court below.

Johnson's History of his Invention.

Moses C. Johnson (examined in the interference with Hall in November, 1881) swore that *he first saw defendant's Hall's nipper* at the *office* of the Interchangeable Tool Co., about October 1, 1878, and that it had such defects that he did not think it worth his while to go to their *factory* at Harlem.

That the "*jaws had a tendency to make a shearing "cut, that is, one overlap the other. I mean by that, "which necessarily would create a pressure which would "break one or the other jaw, whereas, a nipper to be cor- "rectly constructed, should, at all times, have one jaw in "perfect line with the other*" (Rec., 75, Int. 3).

A day or two afterwards he went into the employ of J. H. Jenks & Co., and remained with them till about February 1, 1879. While there he was employed in building a printing press and afterwards to make a *model nipper*, under the *directions* of *Thomas G. Hall* for the Inter. Tool Co., *as a standard for their future work.* This gave him further opportunities of studying Hall's nipper, and he talked with J. M. Adams (a fellow-workman at Jenks & Co.'s, and after April 14, 1879, Foreman of the Interchangeable Tool Co.), and others, about its defects. He finished this original, *Jenks model*, about *January 1, 1879.* (Deft. Hall's test'y., Rec. 129, Q. 26), and says it was an exact duplicate of that nipper shown on the *cut* on *Complainant's Exhibit No. 6.* (Deft. Hall's test'y supports him. Rec., 76, Ints. 6 to 9.)

In October, 1878, he made the sketch shown on *Complainant's Exhibit B*, Revere House Card, and gives its origin as follows :

Int. 12. Where were you living at the time you worked for J. H. Jencks & Co.?

A. I roomed at the Revere House, corner of Houston and Broadway, New York, and took my meals at a restaurant.

Int. 14. State whether or not your attention about this time was particularly called to the subject of cutting nippers, and whether you made any attempts at its improvements.

A. I would state that it was. In fact my attention was called to it from the time I left Hartford in 1878. I had several conversations, while rooming at the Revere House, with Mr. O. D. Woodbury, of 103 East Houston street.

Int. 15. State what conversations you had with Mr. O. D. Woodbury, if any of them related to improvements of yours upon the cutting nippers?

A. We had several conversations about the construction of the nipper, and he agreed with me that it was *mechanically of bad construction and not at all practical.* I at this time called his attention to the fact *that the two jaws or cutting heads should move at a uniform speed, one with the other,* and at that time made a sketch of what I considered would be the proper way—at least one way—of accomplishing the purpose.

Int. 16. State if you have the sketch you refer to still in your possession and if you can produce it?

A. I can. I have it in my possession.

Witness produces a sketch made upon one of the Revere House cards, which is offered in evidence by counsel for Johnson, and marked Johnson's Exhibit B, H. E. T. N. P., (Complainant's Exhibit B).

Int. 17. State as near as you can the date at which you made this sketch?

A. I could not state the exact date. It was during the month of October, 1878.

Room No. 177 Oct 10 1878

Mr. M. C. Johnson Dr.

To Room Rent 1 week to date $ 50

Washing

Carriage

Expressage

25 Received Payment. T. J. Coe Son per Kelley

Johnson & Shultz B

[illegible]

Trustees of Coe

Russell T. Coe

ON THE EUROPEAN PLAN

[illegible]

[illegible] ST.

NEW YORK

TWO LARGE

[illegible]

CONNECTED

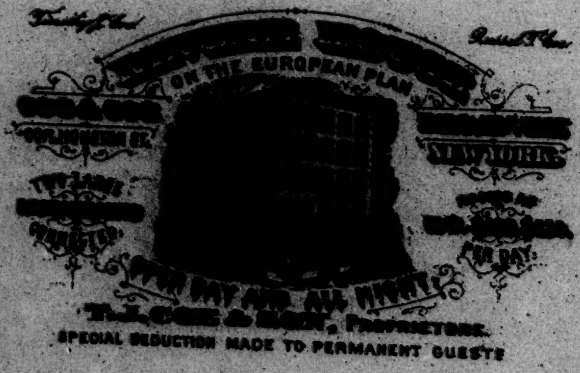
[illegible]

PER DAY

OPEN DAY AND ALL NIGHT

T. J. COE & SON, PROPRIETORS.

SPECIAL DEDUCTION MADE TO PERMANENT GUESTS



Int. 18. Please look at the sketch and describe what points were intended to be illustrated by it?

Objected to as incompetent. The sketch must speak for itself.

A. *That the movement of one handle would necessitate the movement of the other the same distance* (Record, pp. 76, 77).

The engraver employed by the printer of Complainant's Book of Exhibits has greatly misrepresented the pencil sketch on the card. He has represented the hole bored through the side plate as a cut in the two jaws, making thereby two pairs of lips; and instead of the pin shown on the original he has produced a very fair representation of the lips or projections shown on the infringing nipper of to-day.

Complainant's counsel prays inspection by the Court of the original card and sketch on account of the following:

X Int. 409. Please to take Exhibit B and read the letters and figures on the side of it upon which the pencil sketch is made so that the notary can write it down, the whole of it?

A. Room No. 177, October 10th, 1878. Mr. M. C. Johnson, Dr. To Room Rent one week to date, 3.50. Washing, carriage, expressage. Received payment, T. J. Coe & Son, per Utley. Johnson's Exhibit B. H. E. T., N. P.

X Int. 410. Is there a sketch in lead pencil on the side of the exhibit you have been reading, illustrating the invention embraced in the model Exhibit C?

A. There is a sketch of a portion of the model Exhibit C. This sketch does not embrace the whole invention.

X Int. 411. What parts of the invention does it embrace?

A. The tooth and notch connection between the two handles.

X Int. 412. Doesn't it illustrate the spring in between the jaws?

A. I think there is a spring between the jaws.

X Int. 413. Doesn't it show the lips at the head of the spring, lapping over the upper ends of the spring?

A. I don't know that it does; think not.

X Int. 414. Please to look at it and see if it doesn't?

A. It does not—it was intended to represent a pin passing between the two jaws above the spring.

X Int. 415. Was this intended to be a sketch of the whole nipper with your alleged improvement applied to it?

A. It was not.

X Int. 416. What was it intended to represent?

A. It was intended to represent a movement by which the two cutting jaws would approach one another at a uniform speed.

X Int. 417. When did you make this sketch?

A. I don't know the exact date; it was made on a card which I had in my pocket, and to the best of my knowledge and belief it was made in October, 1878 (Rec., pp. 107–108).

He further gives the names of Woodbury, Utley and Carter as persons who might have proved or disproved what he testified to, but *Thomas G. Hall does not appear* to have made any attempt so to do.

Johnson's First Conception of the Combination of these Parts.

A. Immediately after leaving their office, in October, 1878, I was satisfied that the handles or jaws should be geared or locked in such manner that the movement of one would necessitate the movement of the other the exact distance of the movement of the first lever; and in the winter of 1879, I discovered that the part or portion being cut from the end of a rod or wire would leave the jaws with such force as to enter the V-shaped spring and thereby preventing the working of said

spring. To overcome this difficulty I saw the necessity of putting projections below the cutting edge and immediately above the jaw fulcrum which would always present a smaller space than the diameter or dimensions of rod being cut. I also discovered that these projections would prevent the spring from working up (by "up" I mean towards the cutting edge), and thereby doing away with two pieces which they then had in their nipper, to wit, one piece a brass block, slotted, for the tang of the spring, the other piece was a screw (Rec., 78, Ans. to Int. 31).

The testimony shows that by the "*winter of 1879*" he means the *winter of 1878–1879* (Testy. Adams, Whittelsey, &c.).

When Employed by Defendants.

Johnson was hired by the Interchangeable Tool Co. *April 20, 1879*, and was employed in making tools, adjusting machines and, after a month or two, in making drawings for milling fixtures, &c. (Rec., 77–78, Ints. 19 to 24).

The testimony of all the witnesses show that the company was not then making nippers, but begun to make templates and tools by the *Jenks model*, which contained neither gearing between the handles nor "*lips.*" These they abandoned. Defendant Hall says Johnson made alterations on the Jenks model nipper by putting gearing between the handles (Rec., 162, x-Q. 290), and other witnesses show that he made *all the alterations* in that style of nipper.

Johnson says that immediately after he made his "**working movement**" showing **both of his improvements** the company adopted them. "I "should say that my model of the '**working move-**"**ment**' led the members of the company to adopt "it; who or by whom I can't say." That J. M. Adams had the charge of making the drawings and getting up the machinery for making the improved nipper

(Rec., 80, Ints. 45, &c.; see Hall's Testy., Rec., 180, x-Qs. 504, &c., to same effect).

This **working movement** is plainly what Whittelsey calls it, a pair of **templates** for the jaws and handles, by which the outline of mills can be shaped to cut out the working handles and jaws. *Dies* for the full sized forgings could not be made from them, and even defendant's counsel calls them "*skeleton jaws*," and the whole a "*skeleton model*" (Rec., 148, Q. 158, &c.). Nevertheless, defendants seek to confound it with the *altered parts* of the Jenks model nipper.

Johnson says that the first complete nipper made on the plan of *Exhibit C*, was made, he thinks, "some time "in July, 1879." That previous to that "There was "not a *working model* made. The *tools* were con- "structed by Exhibit C. *That is the model the tools were made from*" (Rec., 82, Ints. 68 to 71).

Johnson's "Working Movement." Complainant's Exhibit C.

Int. 32. State then, the nearest you can recollect, the month and day when you first conceived the invention of the combination in question?

A. In the month of May, 1879, I made a WORKING MOVEMENT of my invention.

Int. 33. Describe the *working movement* you made in May, 1879, as near as you can and where it was made?

A. I would state it was an exact duplicate of Exhibit No. 1, so far as the mechanical movement is concerned, including projections on jaws for preventing the entrance of matter not required inside of the nipper. It was made in the American Express building, corner of Jay and Hudson strets, New York.

Int. 34. Have you that movement still in your possession, and can you produce it?

A. I have. I do produce it.

[Same model offered in evidence by counsel for

Johnson, and marked Johnson's Exhibit C; H. E. T., N. P. In this cause, "*Complainant's Exhibit C.*"]

Int. 35. In the construction of this model, did you get any idea from any one else, or was it entirely of your own invention?

A. I did not get any ideas from any one else, and it was my invention so far as I know.

Int. 36. Where did you get the material for making the handles of this model nipper?

A. Mr. J. M. Adams gave me the material from his private tool chest.

Int. 37. State, if you know, what the stamp was, part of which shows on one of the handles?

A. I do. It was the stamp of an Alarm Register Company. This register was for conductor's use.

Int. 38. Was it on the material before you made the handle?

A. It was.

Int. 39. Where did you get the material for the other parts of the nipper?

A. They were picked up out of the refuse matter or material belonging to the Interchangeable Tool Company.

Int. 40. Give as near as you can the exact dates on which this model was commenced and completed?

A. I should say it was commenced and completed between May 10th and May 20th, 1879. I could not state the exact dates (Rec., 79).

As to Alterations of the Jenks Model.

Johnson says he made the handles of Exhibit C *first*, and afterwards made two new handles with a cog connection that were fitted to the *Jenks model*—that is, put in to try them—and says: "*I altered no pieces "belonging with that model; these pieces were additional "pieces*" (Rec. 95, Ints. 259 to 271).

Plain and reasonable as this statement is in regard to

a "*standard*" MODEL (see Hall's *directions "for the "future work"*) of the company, defendant's counsel repeatedly recurs to the subject, and defendants as witnesses endeavor to give the idea that the "**Jenks model**" was *altered and used to form the tools* by. It will be shown by their testimony, particularly *Hall's*, that Johnson made all these improvements, and they were made on *old forgings;* for the company then had no other.

Defendant Hall's "Exhibit No. 10."

The defendants tried to show by reference to this "*Exhibit No. 10*," that Complainant's Exhibit C was made out of the new forgings made for the company at the Colt's Patent Fire Arms Co., by James Kennelly. They lead up to it by the following questions:

To x-Int. 318. Do you mean to be understood as saying that the Interchangeable Tool Co. made or caused to be made the milling tools to make this nipper before it had *templates* made after the model nipper!

A. I mean to say that the mills were made from this model Exhibit C. The profile of the jaw and handle was the only gauge the mills were formed to.

x-Int. 319. Was there a template made of model Exhibit C?

A. It is possible there might have been of the *inside* of the jaw.

x-Int. 320. Is the outside of the jaw and the inside of the jaw both cut by the same milling tool?

A. They are not.

x-Int. 321. Wasn't *it necessary* to make a *template* of the outside of the jaw to make the milling tool by which that was formed?

A. It was not. It *was not necessary* to make a template of the inside to make the milling tool by. The mills could be made from the model as they were.

x-Int. 322. Was the milling tool or tools by which

the jaws of the nipper "*Exhibit 10*" were cut made from the jaws of the model Exhibit C?

A. *They were.*

x-Int. 323. When were those milling tools made?

A. Some time during the month of May or early June, 1879. We were quite a while on them—some weeks (Rec., p. 100).

This Exhibit No. 10 was put in evidence on behalf of Hall in the Interference. From the decision of the Commissioner of Patents rendered May 28th, 1883, Thomas G. Hall's counsel, Mr. Broadnax, took an appeal to the Secretary of the Interior, and this Exhibit No. 10, with others remained somewhere, presumably in Washington, until after *March 14, 1884*, on which date the decision of the Secretary of the Interior affirming that of the Commissioner was rendered.

Mr. Broadnax was doubtless aware of the law regarding such appeals, discussed so fully in Butterworth vs. Hoe, 112 U. S., 50, at pp. 66, &c.

Possibly through this delay Exhibit No. 10 was lost. It was not received in the box containing or supposed to contain all the exhibits used in the Interference (excepting also Hall's Exhibit No. 16 Nipper), nor at any other time by complainant's counsel (Rec., pp. 141, 142, 143).

In allusion to this important exhibit—the only inference to be drawn, from his failing to offer secondary evidence concerning it as in the case of the *Jenks Model*, *Crane Sample*, Brass Nipper, &c., &c., is that the production or truthful description of this Exhibit No. 10 would wreck the defense.

James Kennelly, defendant's witness and die maker, was examined in the *Interference*, and his deposition sworn to May 27, 1882, was by stipulation made a part of Defendant's Record in this cause.

"*5* Q. Please examine the nipper I now show you "marked 'Hall's Exhibit No. 10,' and state if you "recognize it as the No. 2 nipper of the Interchange-

"able Tool Company for which you made the forg-
"ings."

"I do recognize it from external appearance *as an* "*article that could be finished* from the forgings I fur-
"nished that company" (Rec., 242).

Complainant's counsel notes with surprise that the only references made to this important "Hall's Exhibit 10" are in x-Qs. 322, 324 put to Johnson and the foregoing to Kennelly. Thomas G. Hall, though he was examined, cross-examined, examined on the re-direct, re-cross-examined and months after examined again as surrebuttal never made

Milling Marks on One of the Jaws of Complt.'s (Johnson's) Exhibit C.

Defendant's counsel next seek to establish the non-making of Complainant's Exhibit C, in May, 1879, by the following:

X Int. 324. Were not these jaws of Exhibit C milled by the same tools that the jaws of Exhibit 10 were milled by?

A. *I filed the jaws of Exhibit C. They were not milled.* It is possible after starting the mills and the fixtures, I used one of these jaws to locate my cuts, and possibly the mill has touched the jaw in profile. Probably it did. It was used for that purpose. The other I think was not used for this purpose.

X Int. 325. Please to look at the jaws of this model Exhibit C, and tell me if the marks of the milling tools are not on it as plainly almost as if it had just come out of the milling tool?

A. I know of no reason why they shouldn't be as my previous answer would state how they came there (Rec., 101).

Its Skeleton Jaws.

Trying further to show that the *skeleton jaws* of Exhibit C were longer than the old forgings out of which

he made those of the Jencks model by dovetailing, etc., the defendants draw from Johnson the following:

X Int. 329. You say that you made the jaws of Exhibit C out of a pair of jaws that were in the shop at the time that you went there. Now, how was it possible for you to make these jaws out of a pair of jaws that the company had at the time you went there, when in fact the jaws of which you say you made these were shorter than these jaws are; these jaws conforming in length to the jaw of the old nipper after you have dovetailed a piece on the long end as you state that you did with the model at J. H. Jencks & Co.?

A. *These jaws were made with a file, and I removed as little stock as possible from the back or outer profile of jaw, throwing all of my surplus stock on to the inside.* It is possible I might have heated and drawn them in the fire as they were somewhat thicker than now.

X Int. 330. Did you in point of fact heat them and draw them in the fire?

A. I do not know that I did. If they were deficient anywhere I do not know that I used the surplus stock to make up the deficiency, and probably at this time used my own judgment of which would be the proper way of utilizing this stock; by this stock I mean the surplus stock.

X Int. 331. If there was surplus stock enough in the nipper-jaw to enable you to make the jaws of Exhibit C long enough, why couldn't you make the jaws that you made at Jencks & Co.'s long enough without dovetailing a piece on them?

A. For the reason that the holes on which the jaws swing were already drilled in these said jaws when I received them.

X Int. 332. Why didn't you get a pair in which the holes were not drilled?

A. I tried to.

X Int. 333. And couldn't you succeed?

A. I did not.

X Int. 334. To whom did you apply for a pair of jaws in which the holes were not drilled?

A. To Mr. Jencks and Mr. Thomas G. Hall.

X Int. 335. Were the holes drilled in the jaws out of which you made the jaws of Exhibit C?

A. I drilled the holes myself.

Johnson's Advice.

On the next cross-interrogatory Hall's counsel drew forth a statement from Johnson *which has never been contradicted by them*, and which conflicts strangely with their pretense that defendants did not know of his *invention*.

X Int. 337. Did you not advise the company that they would have to throw away their old jaw dies and have new ones made to get the necessary stock in them to make the nipper after the new pattern or model?

A. I think I did.

X Int. 338. Why did you do that in face of the fact that you found all the stock necessary to make the nipper-jaw of the model Exhibit C in the old forging.

A. *Because it would not be practical to do this on a large quantity*, another reason, the jaws in order to be milled must have surplus of stock enough to allow the mills to go below the forging scale.

X Int. 339. So you advised the company to throw away all of the stock of jaws they had on hand and have new jaw-dies made so you could have plenty of material to cut away with a milling tool?

A. *I think I did advise them to do this in order that* they should have enough material to cut away.

From this it is very plain that Johnson, who is admitted by Hall to have made *templates for the handles* (Rec. 181, x-Qs. 514, 521), must have had something by

which to show to the company the requirements of his invention before Hall got the new dies, &c.

In answer to x-Q. 279 he says, "the model (Exh.) C. was the first model I made embodying the invention. "*The Jenks model had nothing to do with this case*," &c.; and in the face of the abortive experiments make by Hall and Adams, which they admit were not adopted, it is impossible to believe that defendant's pretense of ignorance of Johnson's making and denial of the time of his making Exhibit C is other than false.

Johnson's Possession of Exhibit C.

In regard to this he says that he took away and kept the two jaws in his trunk—to which his wife had access—*since July, 1879.* That he needed and used them for making drawings for milling fixtures for the company.

That he also took one of the handles away and that Lewis Smith gave him the other in June, 1880 (Rec., 106, 107, X Ints. 380, 400). This will in a measure explain how the defendants Thomas G. Hall and J. F. Oliver are able to swear that they never saw this *model* in the shop in Hudson Street, for during the time its parts were there prior to July, 1879, they were nearly always detached and in use to form mills and tools by.

It will be shown hereafter what *Hall* and *Oliver* say about *seeing its parts there.*

Protest against use by Defendants.

Johnson did not protest against the use of his invention by defendants, because he felt safe knowing the fact "that I was allowed two years," and did not offer to sell because the proper "opportunity for selling had not presented itself" (Rec. 110, X Ints. 445, 447).

Defendant Hall's Attempt to Bribe Johnson.

This occurred on the 7th of May, 1881. Johnson's testimony concerning it was never contradicted or the act repudiated by defendants.

R. D. Int. 463. You have been asked various questions in your cross-examination with regard to parties with whom he might have had conversations, relative to your invention, or who had approached you with a view of becoming possessed of your rights. Have you ever been approached by any of the members or officers of the Interchangeable Tool Company or their agents with a view to becoming possessed of your right to the invention in controversy in this interference?

A. I think I have.

R. D. Int. 464. Please state when, where and by whom you have been so approached and the circumstances as near as you can recollect them?

A. I was approached in the City of Hartford by a man who claimed to be acting in the interests of the Interchangeable Tool Company, who wished me in consideration of a sum of money, to sign certain papers which would virtually make my invention the property of the Interchangeable Tool Company. The time was about May 7th, 1881, possibly a day or two before. This man's name was Prescott; I do not know his whole name and can't give it; I think his initials are F. A.

R. D. Int. 465. What sort of a paper did he wish you to sign?

A. I made a copy of the paper at the time and showed it to other parties, Mr. Samuel D. Chamberlain for one. Mr. Theodore G. Ellis for another, and I have a copy of the paper which I can read and put in evidence. I showed both of these parties the original paper. I think also Mr. A. Gustam saw this paper.

R. D. Int. 466. Did you or did you not, look upon the offer of a sum of money for signing this paper as a bribe to do a dishonorable action against the rights of Henry G. Thompson, the alleged owner of your patent?

A. I did look upon it as a bribe.

R. D. Int. 467. Did you sign that paper?

A. I did not.

Re-direct Examination closed.

RE-CROSS EXAMINATION.

R X Int. 468 How much money did Mr. Prescott offer to give you?

A. He offered to give me two hundred and fifty dollars—and thought he might make it five hundred.

R X Int. 469. Did he tender you the money?

A. He did not. No (Rec., 112, etc.).

Hall's knowledge of this is shown on his cross-examination (Rec., 181, 182, x-Qs. 516 to 528).

Read in connection with "*Defendant's Exhibit, No. 13, Prescott Letter*," dated March 14th, 1881.

HALL'S EXHIBIT No. 13. Oct. 12, 1881. J. E. B.

Riggs House, Washington, D. C. C. W. Spofford, proprietor.

14th MARCH, 1881.

DEAR HALL: I have found a man that I have been looking for, who is the friend of the particular man inside that I want to get at. I have promised to pay him $100 at once, & shall get the order & notice of interference this week and go over to take testimony immediately.

The arrangements I have made will, if we get any decent testimony, such as I expect, insures us a clean victory very soon and will not cost us as much even as we supposed.

I cannot by letter explain as fully as I can when I see you. Let your friends send me check for $125 immediately, & if convenient let it be certified. I will give you a satisfactory account of matters when I see you, which will be in a few days. Telegraph me on receipt that check is mailed, & let this be strictly confidential. The situation is positive & important.

Yours truly, F. A. P.

[ENDORSED:] Thompson vs. Hall. Defendant's Exhibitt No. 13. Prescott letter. J. E. B., Sp. Ex'r. 7th April, 1884. (Book of Exhibits, p. 73).

Elbert A. Whittlesey, complainant's witness was employed by the Interchangeable Tool Co. *April 23d, 1879,* and until January 3d, 1880.

He describes Johnson as an extra good machinist and tool maker (Rec., 57, Q. 8).

He identifies Complt.'s Ex. No. 6 as the circular issued by the Interchangeable Tool Co. in 1879, and the nipper represented by the drawing thereon as the nipper the company was making or about to make when he went in their employ, and this shows the amount of knowledge of the proper way of constructing a nipper possessed by that company as late as *April 23d, 1879* (Rec., 58, Q. 21; Exhibits, p. 9).

Witness is shown Complainant's Exh. C, and says he first saw it, in the Interchangeable Tool Co.'s shop, probably two or three weeks after we started—that it is the *template* made by M. C. Johnson *to illustrate the action of the nipper* * * * *improvements in Hall's original nipper*, or the one that we had in the shop when we started. This fixes *its date about the middle of May, 1879* (*Ib.*, Qs. 17 to 21).

He describes Johnson's improvements—interlocking the handles and *different manner of putting in the spring* with the *projecting* lips to keep pieces from flying into the inside of the nipper after they are cut off—thereby securing freedom from stoppage, &c., and says there were none such in any of the models used or possessed by the company before Johnson's model (Complt.'s Exh. C) was made (Rep., 59, Q. 25 to 30).

That he had never seen or heard of any similar combination in a nipper before he saw *that made by Johnson in May, 1879* (*Ib.*, Qs. 31).

"He says we talked about it a good deal. I know

" we talked about them. ' *We knew the Jenks model* " *was imperfect* and started to make the tools.'

" After an interruption, during which——

Witness had the circular " Complt.'s Exh. No. 6 " in his hand, he was asked :

" Q. 33. Does this circular represent the Jenks model " Complt.'s Exh. No. 6 ?

"A. It is substantially the same as the Jenks model " nipper," and concludes his answer to Q. 32; "I can't " remember the details of the conversation that oc- " curred five years ago. I started to make the tem- " plates for the mills, and we (Adams, Johnson) had " concluded not to continue until they made the " *changes suggested by this exhibit* (Complainant's Ex- " hibit C). We had several conversations in relation " to changing of the nipper from the Jenks model. " We had started to make the tools from the Jenks model " (Rec., pp. 59, 60, Qs. 32 to 35).

This testimony is supported by the fact on which all the witnesses agree that no nippers were made for sale until about July 1, 1879.

He says Johnson first communicated to him his ideas embraced in Complainant's Exhibit C, and its parts " *I think about the first of May, 1879; I think he spoke* " *to me before he began on Exhibit C*; we roomed to- " gether and talked about these improvements in our " room." (Rec. 61 Qs. 45 to 48).

He says Johnson was the inventor, that the credit therefore was so given him in the shop and thinks Hall must have seen Johnson, making these improvements (*Ibid.*).

Hall admits that he knew of them (Rec., 161 ; x-Q. 282, and 169 x-Q. 375 to 387 cited *infra*).

The Authorship of the Combination.

Shown the Letters Patent issued to complainant as Johnson's assignee on Oct. 5, 1880, No. 232,975, to Q. 30, " In the light of all facts within your knowledge

" and observation, what is your belief as to the author-
" ship of that combination ? "

" A. I attribute it to Mr. Johnson " (Rec., 62, Q. 59).

He never heard Thos. G. Hall or Adams make any claim to the authorship of these improvements while he was in the employ of the company (*i. e.*, up to 1880).

" *Defendant's Exhibit Nipper Handles*," he says won a part of the No. 4 nipper, and that they were brought to him by Mr. Adams to insert a pin where one was broken off in last of *May* or *early June*, 1879. (Confirmed by Deft. Hall, *infra*). (Rec., 63, Q. 60–62).

The Certain Working of Johnson's Improved Nipper.

That the objection to Hall's old nipper shown in the company's circular (Complainant's Exhibit No. 6) was " *that the jaws would not work simultaneously*," " the " cutting edges would overlap and underlap each other " and destroy the cutting edges by careless handling " and break," etc.

" Q. 68. Would not the nipper as now made with " Johnson's improvements cut with certainty in the " hands of any buyer ?

" A. Any one possessing the necessary strength to " operate them " (Rec., 63 ; Q. 55 to 69), showing that Johnson attained *certainty* of *working* by his combination.

His Use of the Jenks Model and Complainant's Exhibit.

He says he used both the " *Jenks Model* " and *Complainant's Exhibit C*, in making mills for the *jaws ;*

" Q. 73. What mill did you make from Exhibit C ?

" A. *The inside of the jaw*, and for the spur and " notch on the handles."

" Q. 74. For what parts of the jaws did you use the " Jenks model to make the mills by ?

" A. The cuts on the outside and the side cuts of the " jaw.

" Q. 76. Why did you make the mills for the inside " of the jaw from Exhibit C ?

"A. Because we changed it from the Jenks nipper "so as to hold the spring and give the lips over the "spring like in Exhibit C. *Those lips are not in the "Jenks model.*"

"Q. 77. Why did you make the mills for the handles "from Exhibit C?

"A. Because that was the model which incorporated "the spur and notch in the nipper" (Rec., p. 64).

Whittelsey testified as above in 1884, five years after these occurrences, and expressed the most complete confidence in the identity of Complainant's Exhibit C with that which he had used in the Hudson street shop in May and June, 1879.

His Assistance of Johnson.

On his cross-examination he further testified that he helped Johnson to make it by *filing off the check pieces of the jaws* (Rec., 65, x-Q. 89), *made from a couple of old forgings we had in the "shop;" they were jaws for the nipper forged before "I came there;"* don't think they were reforged.

Complainant's Exhibit C Generally Detached.

This witness shows that after the jaws and handles of Johnson's (*"working movement,"* "templates"), Complainant's Exhibit C, were completed they were *assembled* on one of the side plates of the Jenks model nipper, and tried on other plates, but that they were detached most of the time after the templates were completed (Rec., 67, x-Q. 104), and that "it was very "seldom that they were all" (the parts) "assembled "together after they were detached. I don't remem- "ber ever to have seen them assembled after *model C "was completed, and we had taken it apart to work from,* "while I was in the employ of the company" (*i. e.*, to January 3, 1886). (Rec., 71, Re-d. Q. 137).

Jenks' Model.

In answer to the long x-Q. 125, in which defendant's *counsel states that* there was a projection or lip in the Jenks model, he says:

A. "I think there was no projection in the Jenks model whatever," and to x-Q. 126, "That is, as I remember the Jenks model."

Kennedy Nipper Drawing (not filed by respondents).

He says: "I think there was a drawing of the "Kennedy nipper in the shop. At any rate, there was "a drawing of a nipper showing the handles geared "together. I think this is the one, and as to the idea "of gearing the handles together.

"A. I think it was suggested by that drawing. We "all looked at it, Johnson, Adams and I. We saw the "necessity of locking the handles together, and that "suggested the way."

He thinks Mr. Judge, a lawyer, brought it, but as to the Defendants' Exhibit Lead Pencil Sketch, "I have "an indistinct recollection of a drawing being brought "in, but couldn't recollect by whom it was brought in "or what it represented." (Rec., 69, 70, x-Qs. 130 to 134(.

Re-d. Q. Did you ever see a nipper made in conformity to the Kennedy drawing?

A. I never did (Rec., 71).

The foregoing answers will show the honesty and frankness of the witness, but a glance at "Defendants' Exhibit Kennedy Nipper Drawing" will show that Johnson's practical, cheap and strong *rounded prong and notch always in engagement gearing* was a great advance upon that. Of the famous lead pencil sketch more will be said hereafter.

"Defendants' Exhibit Templates" and "Defendants' Exhibit Whittelsey's Jaws."

These templates convict Hall of an attempt to deceive.

Defendants produced a pair of templates which they have put in as "Defendants' Exhibit Templates," and asked Whittelsey if he had made them. He says the

outside one is his *but does not think the inside one is*, because he has tried it on a pair of jaws which he produces, and defendants put in evidence as "Defendants' Exhibit Whittelsey's Jaws."

Rec., 66, x-Qs. 100 to 104.

After further questions defendants' counsel returns to the subject of *templates*, and asks:

"107 x-Q. When you made the templates of No. 2 "nipper to what model did you make them conform?

"A. I started and made a complete set for the "Jenks nipper first, and we afterwards abandoned the "*inside of the Jenks nipper and made the template to* "*conform to the inside of the jaw of Exhibit C.* This "relates exclusively to the jaws.

"108 x-Q. The template that you made to conform "to the inside of the jaws of Exhibit C, did it fit the "form of the jaw exactly when you made it!

"A. It probably did. I would make a template as "close as I could."

Then says as to the time, &c., of the milling of the inside of the two Whittelsey jaws:

"A. The one having the two edge cuts (outside and "inside) was cut previous to the mills being ground, "as they were originally made. The other one was "made after the mills had been ground, probably once "or twice," and that the grinding would cause the *cut* to vary more or less between the cutting edge and the lip of the nipper. (Rec., pp. 67, 68, x-Qs. 107 to 114).

After trying the inside template handed him on the Whittelsey jaws, he says it fits the one that has the two cuts best.

"122 x-Q. *If it is the same template that you made and you fitted it to the inside of the jaws of the Johnson* model, *it would fit that model exactly, would it not?*

"A. It would be a close fit.

"123 x-Q. Please to try the templates (Deft.'s Ex-

" hibit Templates) on the jaws of the Johnson model " Exhibit C, and state whether it fits closely? (Wit- " ness tries the said jaws on template.)

A. It fits pretty near, but it *does not fit as close as I should fit a template.*

124 x-Q. Upon your examination of these jaws and " upon trying the templates upon them, is it your opin- " ion that *either the template is not the same template* " that you made, or that the *jaws* are not the *same jaws* " to which you fitted the template?

"A. *It is either a different jaw or this is not the tem-* " *plate I made.*"

The Identity of this Template.

The identity of this *template*, therefore, becomes a matter of some importance. Hall, who says himself that he had no charge of the mechanical work of the shop when asked if he saw Whittelsey make them, said " *I am not quite sure*, but *that was his particular branch* " *of work*," and then, " I saw them on his bench in " Hudson street and he was at work on them," evidently speaking from a loose impression—and *giving no date* —though Whittelsey was there until *Jan'y 3, 1880.* Before this Hall had testified that " *some* " *time between the first of December, 1879, and the* " *first of January, 1880*, the company had completed " a set of milling machine fixtures which have been " used exclusively since that time in milling the No. 2 " jaws, which would mill the projection over the head " of the spring shorter than shown in Complainant's " *Exhibit* 3, from $\frac{1}{32}$d to $\frac{1}{64}$th of an inch shorter (Rec. " 128, Qs. 14 to 19).

He forgot the admission that the defendants had made *this* and other nippers like *Complainants' Exhibit 3d, since July, 1880.* (Rec., 12).

" *90 Q.* When did the Interchangeable Tool Co. pro- duce its *first* No. 2 nipper like Complainants' Exhibit 3d?

" *A.* About July 1, 1879.

" *91 Q.* Were the first No. 2 nippers made by the company like Complainants' Exhibit 3d?

" *A. Substantially so* (Rec., p. 136).

Exhibit 3d is a No. 2 nipper made by defendants in 1880; and complainants' counsel produced it and asked

" R. D. Q. *I show you Complainant's Exhibit 3d, a* " *nipper made in 1880,* and asked you when the side " plate in that nipper was made?

" A. I couldn't tell when that was made; might " have been made last week.

Complainant's counsel produces another nipper as Exhibit 5th (bought in 1884) and asks:

" *R. D. Q. 147.* Please compare the jaws of *Exhibits 3d* " and 5th with '*Defendant's Exhibit Templates*' and " state which fits the closest?

" *A. Exhibits 3d* fits the closest.

" *R. D. Q. 148.* To what degree?

" A. *Almost a perfect fit on Exhibit 3d.* The *other one seems to be considerably away from the gauge.*

" R. D. Q. 149. How do they compare with Com- " plainant's Exhibit C?"

" *One of the jaws on* Exhibit C fits it very nearly; " the other does not. *Neither one of the jaws of Ex-* " *hibit C fit the template as well as Exhibit 3d does.*

" R. D. Q. 150. Why do the jaws of Exhibit C differ; " can you tell?

" A. I don't know the cause of their differing. One " may have *been filed more* or *been machined,* or some- " thing.

" R. D. Q. 151. Was Exhibit C made by machinery " or by hand?

" A. Originally by hand" (Rec., pp. 71, 72).

From this it is as certain as human testimony and unchanging steel can prove that this template was made *after the mills had been changed to suit the new mills and milling vise jaws made between the* first of De-

cember, 1879, and January 1, 1880, which formed the jaws of Complainant's Exhibit 3d in 1880.

More than six months after Whittelsey was examined, Thomas G. Hall, who had been examined, cross-examined and examined on re-direct, was again examined in surrebuttal, on this *same subject.*

He is handed "*Defendant's Exhibits Templates,*" and says they are the same put in on his behalf in the interference (in 1881).

"Q. Please to state whether *these templates* are now "in the same condition that they were *at the time John-*"*son was in the employ of the* Interchangeable Tool "Company.

"A. *They are to the best of my knowledge and belief.* I have never *known* of any change.

"Q. Could any change be made in these *templates* "without your knowing it?

"*A. Not in the shop.* I only referred to that subject "since the *template has been out of my hands in the in-*"*terference case.*

"Q. State, if you know, who made these *templates?*

"*A.* Mr. Whittelsey made them (Rec., p. 250).

Again does Thomas G. Hall attempt to impose on the Court. If he had dared he would have stated that these templates were made before July, 1879; when Complainants' Exhibit C did or did not give the outline of the templates then made by Whittelsey.

Moses C. Johnson was in the employ of the company in *December, 1879,* and Whittelsey, if at all, made them then. Hall swears that in that month the mills were changed so as to cut the lips on the jaws from $\frac{1}{33}$ to $\frac{1}{34}$ of an inch shorter. Templates were necessarily made to make these new mills by to cut the lips of Complainants' Exhibit 3d in 1880; and that these *templates* were a pair of those new and changed templates is shown by their *fitting Complainants' Exhibit 3d.*

That Thomas G. Hall knew this is not to be doubted, nor that he swore, as he did on his surrebuttal, to show that these templates might have been changed in the Patent Office or elsewhere during the interference.

This attack on Complainants Exhibit C, therefore, fails, while it utterly destroys the credibility of Thomas G. Hall's testimony.

The one Jaw with Mill Marks on it.

Defendants' counsel, at x-Q. 124, had already examimed Whittelsey in regard to this jaw, and he answered: "A. It is either a different jaw or this is not the tem- "plate I made." Again he asks: "*x-Q. 156.* Is it not "evident upon examination of the jaws of Exhibit C "that one of them has been through the mills of the "company? *A.* It is. *One* shows the milling marks" (Rec., 73).

In the "Interference" Whittelsey testified to x-Ints. 158, 159. That it "might have gone under the mills. "It might have been made previous to that and been "run under the mills to test them, to see if the stocks "were right," and that that would have left the marks of the milling tools on both edges of the jaw as perfectly as they are shown on the jaw.

The inference sought to be drawn by the defendants that this jaw was *milled into shape from new forgings received in June, 1879*, fails, and Hall should have produced the *authentic template* made in May, 1879, by Whittelsey.

This he does not do, and we infer from his failure that it would have supported Adams, Johnson and Whittelsey's statements that they were made according to Exhibit C, and would have fitted its jaws.

This one jaw has both the marks of the file and the mill upon it, and Hall's own witness, James Kennelly, says he is not capable of judging which were made first.

Improvements in the Plates.

Whittelsey, after giving the order in time in which Johnson made his improvements shown on Complainant's Exhibit C, as first the handles, and testing them to get shape, says: "*He afterwards made these jaws*, or a "pair of jaws similar to them" (witness holding Exhibit C in his hand); "*then it was detached and we used* "*the parts to make our tools by*," says in answer to

"138 Re-d. Q. The improvement made by Johnson "were chiefly in the jaws and handles, and not in the "plate, were they not?

"A. *The* PLATE *of the new nipper was modified as well* "*as the jaws and the handles*" (Rec., 70, 71).

The new plate has no hole drilled in it for the pin holding the brass blocks, for this was thrown out of the improved nipper (see Hall's No. 8 Nipper and No. 4 Nipper Jaws, *infra*).

JAMES M. ADAMS, complainant's witness, was a fellow-workman with Johnson at Jenks & Co., and after was the foreman of The Interchangeable Tool Co. in Hudson street from April 14, 1879, to January, 1880 (since an editor!)

He says the *Jenks model* made by Johnson at Jenks & Co.'s is shown on the drawings annexed to Hall's Patent of November 5, 1878; that he saw it in defendants' shop in 1879, but that the nipper defendants were manufacturing (April 14, '79), was "Hall's Compound "Nipper, composed of two jaws, two handles, two "plates, steel spring, *brass spring block*, and the "lateral pin in each jaw below the cutting edge, and "the screws (Q. 9).

"They were good for nothing (Rec., 17, Q. 20). Never saw more than a dozen manufactured nippers when he went there (Q. 21).

That the company had no nippers, or models of nippers with gearings between the handles.

That Wm. Q. Judge had nothing to do with making the nippers; that neither Judge nor Hall ever showed him any plan or drawing of improvements on the nippers; that he "experimented in interlocking the "handles so as to make the jaws move simultaneously," and produced "*Complainant's Exh. D*," which is put in evidence. Also "*Defendant's Exhibit Nipper Handles*" (Q. 80). That he hired Moses C. Johnson as toolmaker about the last week in April, 1879 (Rec., 16–17, Qs. 7 to 22).

That *Thomas G. Hall* never gave him any instructions about making any improvements on the nippers (*Ib.*, Q. 28; also 26, x-Q. 256), and that it was understood "that the nipper was to be altered and according "to his judgment, and that Hall had no authority in "the shop in the change or manufacture of the nippers" (Rec., 41 x-Q., 288–290).

Adams' Suggestions, &c.

That he made suggestions to Mr. Gustam and Mr. Hall (Q. 17), to throw out the brass block which holds the spring, but Hall said, "it could not be accom-"plished, that we must have the spring block."

That on the same day he had tried "*an experiment* "by which the upper ends of the *spring were bent out-*"*ward* and inserted into a recess in the jaw above the "fulcra;" and that "Hall said he had tried something "similar and it would not work" (Rec., 39, 40, x-Qs. 270 to 279).

This shows that neither Adams nor Hall knew anything about Johnson's *projecting lips or their uses.*

Complainant's Exhibit Johnson's Exhibit C.

Q. 31 Do you know whether or not Moses C. Johnson at or about the time you made Complainant's Ex-

hibit D made another model showing improvements on the company's nipper?

A. He did afterwards; he was at work on the model at the time, but completed his model after I made mine.

Q. 32 Please examine the model now shown you and state, if you know, what it is, and who made it, and when?

A. *It is the model nipper made by Moses C. Johnson, in the month of May, or thereabout, 1879.*

Model offered in evidence and marked Complainant's Exhibit Johnson's Exhibit C, J. E. B., Sp. Ex'r, 20 June, 1884.

Q. 33. How do you know that Johnson made this model, and what was it made for?

A. I told him to make it and I saw him to work on it. I furnished him the brass for the handles.

Q. 34. When you say you told him to make it, what words did you use in speaking to him?

A. I told him we must have a new model. Then we talked of some changes; I showed him my Exhibit D; he went on and made the model and occasionally came for sanction and direction.

Q. 35. What direction did you give him; state the words?

A. I said "Take that model of mine and change those teeth that interlock the handles so as to make the interlocking with one operation or one cut."

Q. 36. Did you have anything to make one cut with at that time?

A. We did not.

Q. 37. Then you expected him to invent something to anticipate further operations or cuts, did you not?

Objected to as leading and as instructing the witness.

A. I expected him to make a cutter or mill to do that work.

Q. 38. In addition to making the model?

A. Yes, sir.

Q. 39. What are the jaws of that model made of?

A. Steel from one of the old nipper jaws that were forged previous to my going in their employment.

Q. 40. By what means, if you know, were those forgings given their present shape and size?

A. Mostly by filing and forging; I did not see the forging done.

Q. 41. Do you know what part of the jaws was reforged, if any, state?

A. I do. The forging was short at the lips at the head of the spring, and by forging it was lengthened.

Q. 42. What tools were used to give it the present shape?

A. Files mostly.

Q. 44. Did you ever see any nipper or model of a nipper with lips nearly approaching when closed, as in model Complainant's Exhibit C, now shown you, before Johnson made his model?

A. I did not. It is the first one I ever saw.

Q. 44. Whose invention was the placing of those lips in that position?

Question objected to, it being impossible for the witness to know whose invention it was.

A. Moses C. Johnson.

Q. 45. State after examination of this model whether or not this is the first model you ever saw with the handles interlocked with a projection on one handle working into a depression in the other, and whose invention as far as you know it is?

A. It is the first I ever saw and it is Moses C. Johnson's invention.

Q. 46. Please explain now what you meant by speaking of making this with "one cut," in contra distinction from the mode of making the connection in Exhibit D?

A. In the Exhibit D it would be necessary to move the handles under the mills several times, whereas in

model C once is sufficient. By the mills I mean the tool that cut the shape of the metal that is pressed under them when revolving.

Q. 47. Then is necessary is it not to make mills of such shape as in turn to cut out the required shape from the unformed forging?

A. It is.

The Patent.

Adams says that Johnson was the inventor of the combination claimed in complainant's patent.

Mills, How and When Made.

That Complainant's Exhibit C was kept in the company's shop; that some of the men saw it, and that it was used as a model to make "*all of our mills for forming the nipper*," and on cross-examination that they were so made about *May or June, 1879* (Rec., pp. 32, 33, x-Q. 205), and Johnson and Whittelsey confirmed him.

That Johnson himself, and perhaps others, made the first milling vice-jaws, and they were made to conform to Complainant's Exhibit C (Rec., 35, x-Q. 240, &c.).

Projecting Lips.

That Complainant's Exhibit C was the first model he ever saw with projecting lips; that the Jenks model had no projecting lips for holding the V spring without fastening.

That Hall, Oliver and Harris saw Exhibit C to his "knowledge in that shop in Hudson street. I have "seen it in the *hands of Hall and Oliver*, I should say "a good many times;" and that he had "talked with "Hall about Complainant's Exhibit C, Johnson's "model, when Hall had it in his hands very often as "the model was being made, and after it was com-"pleted." It was the model from which all the Inter-

changeable Tool Co.'s nippers, No. 2 size, were made (Rec., 20, Qs. 57 to 63, and p. 26, Q. 115).

Defendants Who Half Support Adams.

Hall, on *surrebuttal*, denies having seen the *model*, but as to the *parts* says: "*No; not to my knowledge*" (Rec., 162, x-Q. 286). *Oliver* also denies having seen the *model*, but as to the *parts*, "*It is possible I may have seen them without recollecting them*" (Rec., 253).

It is shown that the *parts* were very seldom together.

Adams further says that *extra parts* were made for dies, from which the forgings were made from this model; also tools, &c. (Rec., *Ib.*, pp. 64, 65, and 23, Q. 96).

(*Hall* says *duplicate parts* were made by Johnson (Rec., 172, x-Q. 412) from the Jenks model nipper *after it was altered* (meaning from a nipper of the Jenkins' model style!).

(*Oliver* says he saw Johnson making the alterations (Rec. 206, x-Q. 169, &c.).

(Harris says Adams (prior to July, 1879,) "might "have showed parts of the work. I took no notice, "not being a mechanic" (Rec., 216, x-Qs. 78, 79).

The One Jaw With Mill Marks.

In the "Interference" Complainant's Exhibit C had been put in evidence as Johnson's Exhibit C, and it had remained there until it was shipped to counsel in a box with other heavy metal exhibits on March 24, 1884 (Rec., p. 142).

Whittelsey had been examined and had marked *one of the jaws* of Johnson's Exhibit C with the letter W at the request of *Hall's counsel, to identify it.* It was *the jaw* with the mill marks. Adams was also examined in the interference.

On his cross-examination in this cause he testifies that he did not take charge of the models, and don't know who took charge of Exhibit C, or whether it was in the shop when he left the company (February 1, 1880).

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At x Q. 354 the following questions and answers are cited from his interference deposition:

X Q. 273. "Can you state certainly that the jaws now making part of model Exhibit C are the same jaws that first made a part of that model?

A. "To the best of my ability they are."

X Q. 274. "Have they any peculiarity or mark upon them, by which we can identify them as the same jaws?"

A. "There is the mark M which we had on our original jaws meaning 'model,' or standing for 'model.' Their general appearance gives me the impression that they are the same."

X Q. 275. "Please point out the letter 'M,' as being on the model?"

A. "[Witness points out the letter scratched in the right hand jaw, *when the model is turned with the jaws uppermost.*] I mean the jaws with the milling marks on the inside and outside edges."

X Q. 276. "Was that letter on the model at the time it was made to identify it as the model nipper?"

A. "It was put on to indicate the model jaw."

X Q. "Well, when?"

A. "I do not recollect."

X Q. 278. "Well, do you recollect seeing it when the model was in the works of the Interchangeable Tool Co.?"

A. "I have that impression, but am not positive."

Are the answers to those questions true?

A. They are to the best of my recollection (Rec. 54).

It will be noticed that the trick of *turning the jaw so that the W should appear M* was successfully played upon Adams; who, on being further cross-questioned, confesses that he is only giving an *impression*. It was undoubtedly the impression made by a very small trick.

The question naturally arises, why should the perpetrator descend so low as to play this trick?

But remembering that it was done in the interest of Thomas G. Hall and for the ("Company") defendants, who employed as their attorney in this very interference F. A. Prescott, the writer of "Defts. Exhibit 13 Prescott Letter," showing his very peculiar preparations, we can easily assign a motive.

When three years afterwards this jaw was shown to Whittelsey he said "*either the jaw has been changed or the template is not the one that I made.*" The *template* was also a *trick* made for one thing in December, 1879, and offered as if made for a different thing in June, 1879.

In the same way it will be shown that the defendants offer, among others, "*Defts. Exhibits Hall's Pin Gearing,*" "*Defts. Exh. Hall's Pin & Gearing,*" as though made in 1879, while they were made in 1884, and not a word is breathed about it until the trick is detected on cross-examination.

On re-direct Adams says he has not the least doubt that Complts. Exhibit C is the same model that Johnson made in or about May, 1879.

One of its jaws may have been milled after that, by accident or design, one may even have been changed for a different one, but the other jaw and the two handles have not, and to any mechanic they show the invention.

If a trick has been played it has been in vain, for enough of the original remains to show in its original state how it existed in May, 1879, and *if* the mill-marked jaw has been put on it in place of the original the change has been made for a purpose.

Johnson would not have made the change, if any was made, for he is too good a mechanic not to know that a change might and probably would be detected

by the application of the true templates made from or by the true jaw.

Of Defendant's Evidence.

The defendants endeavor to destroy Johnson's claim to his invention by offering a variety of experimental exhibits, which, when they are genuine, show an utter lack of knowledge on the part of Thomas G. Hall, defendant and claimant, of the first principles of mechanics. None of these were ever adopted by the Interchangeable Company, or any one else—and none, including the various patents, ever go beyond the suggestion of one item of Johnson's combination.

Quite a number of the metallic exhibits of the defendant's were put in as originals, and were only found by cross-examination to have been made five years after Johnson completed and put his invention into practical use. Even these were wholly unpractical and of no value, in view of the fact that cog gearing was in common use for ages.

As the Court below can only have arrived at its decision by believing that there was *some truth in defendant's testimony*, and that it bears upon and against Johnson's claim *to his combination*, it is necessary to analyze defendant's testimony and show how *false and irrelevant it is*.

To that end the attention of the Court will be called to the testimony of Thomas G. Hall, James F. Oliver and David L. Harris, three of the defendants who profess to have some personal knowledge of the matter. As they each show that they are not experts or (Harris and Oliver) even mechanics, little weight can be given to their description of models, whether real or pretended. And when these models are of vital importance, have been traced to their possession, and they do

not produce or account for them, their absence should deprive their oral testimony of all weight soever.

These defendants fail to produce a *brass nipper* which Hall says he tested January 1, 1877, and had and showed to others in 1877.

The *Crane sample*, made in the early fall of 1878, and also the "*Jenks Model*," which was their standard before Johnson made his improvements.

The Jenks Model

was made and finished at J. H. Jenks & Co. for defendants in the first part of January, 1879 by *Moses C. Johnson*, under the directions of Thomas G. Hall, "*as "a standard for our (defendants) work in future*" (Rec., p. 165, x-Q. 323), and was shown *as such* by Hall to a "Mr. Curtis" as late as March, 1879.

Such a model shown to have been in defendant's possession for months after the adoption of Johnson's improvements upon *it* (as Hall says) is of the first importance. The testimony of Judge, Hall and Oliver is repeatedly objected to on account of its non-production, and the only reason for this is given by the chief defendant Thomas G. Hall, president of the Interchangeable Tool Co., &c., &c., who own it, *that he does not know where it is, and has no means of finding out; that he has searched diligently and last saw it about the first of January, 1880, at 57 Hutson street* (Rec., 130, Qs. 34 to 37). It was for nippers of size No. 2, of which over 30,000 were made.

He does not even state that *he has asked any one for it or that it is lost* or destroyed, and counsel submits that his testimony concerning it is discredited.

Thomas G. Hall says that his nippers (made after the *Jenks model* as a standard) did "not work satisfactorily" for "want of uniformity in the movement of the

jaws" (Rec., 128, Qs. 23, 24), and that seems to be the reason for *the suppression of this model.* As the witness states that it had "*projections over the head of the spring holding the spring,* &c., which is one of the functions of Johnson's invention "*projecting lips,*" that there was no complanant's Exhibit C, but instead the *altered Jenks model* made by Johnson, from which all the improved nippers were made, he should not be allowed to testify before he accounts satisfactorily for this prime basis of his defense.

The Alleged Alteration of the Jenks Model.

Hall had the original completed as a standard about January 1, 1879, as a standard as late as January, 1880.

Johnson swore (in 1881) that it had not been altered. *Hall* swears in 1884 (against objection) that it had been in certain ways by Johnson. That after it was altered it was used *as a standard* for their *mills, templates,* &c., that *duplicate parts* of one handle and one jaw were made and carried by him to the Colts' Arms Co. and dies for new forgings made therefrom by James Kennelly (Rec., 134, 135, Qs. 75 to 88).

James Kennelly's depositions (put in by defendants, subject to complainant's legal objections), that Hall brought him *a model* which was in the Colts' Pat. Fire Arms' Co.'s possession and shop on May 26, 1882, from which he made the dies in May or June, 1879, shows that the defendants did know where there were models or duplicate parts of the alleged alterations of the Jenks model, and their non-production of this the best evidence destroys the right of admission to their secondary testimony.

It also convicts the defendants of suppression of evidence and destroys their credibility.

The defendants testified under objection, and attention is called to other inconsistencies and contradictions in their testimony than those before noted.

A. *As to Johnson's* "LIPS" *projecting* over the spring holding it in position without fastening and preserving it from injury, &c.,

1. Thos. G. Hall states that he furnished the forgings to make the *Jenk's model*, which Johnson completed about the first part of January, 1879, *under his direction* (Rec., 129, Qs. 25 to 28). (Elsewhere he shows that these were "old forgings" for nippers without "lips" or gearings. The new were made in June, 1879.)

2. That the "*Jenk's model had projecting lips over the head of the spring holding the spring in position.*"

3. That in *January, 1879*, he made "*Defendant's Exhibit* No. 4 *Nipper Jaws*," with a hole bored in each jaw, "for the insertion of a pin *which extended over the open space between the two jaws*," against which the *upper end of the spring abutted* (Rec., 155, Qs. 211, 212).

To Q. 210: "The spring was *seated* where the notches appear on the inside ot the jaw."

Can any one believe that *Hall directed Johnson* in *December, 1878*, to make the Jenks model with projecting lips, after looking at "Defendant's Exhibit No. 4 Nipper Jaws," and reading his testimony thereon. Certainly he did not conceive of the functions of the "*lips*" when he made those jaws.

4. Hall shows that the old forgings were shorter in the shaft of the jaws, and had less metal where the projecting lip is made than in the new dies (Rec., 139, 140, Qs. 114, 119).

5. His counsel having described (Q. 152) complainant's Exhibit C, as a "*skeleton model*," he says, in answer to Q. 159, that he does not think it *would be* pos-

sible to make its "SKELETON JAWS" out of the old forgings (Rec., p. 148).

6. On cross-examinntion (x-Q. 413) Hall says: "I "remember that the stock in the forgings I gave Mr. "Johnson *were a little scant*, so that the *lip projected* "*but a trifle over the thickness of the spring*, and to x-Q. 415 : "It was a rough forging I gave him ; the *lip had* "*not been cut in it.*"

As the Jenks model was described by him as *a full nipper* (Rec., 152, Q. 182), *a standard*, and as such shown (Rec., 168, x-Q. 372) to a Mr. Curtis, an intending buyer, Hall's statements are irreconcilable.

7. Required to give his "*directions*" about making the Jenks model, Hall says he showed Mr. J. H. Jenks a model nipper. "I think it had been made by Mr. "Crane. It might possibly have been one of the nip- "pers made by hand about which I have testified" (*under objection for non-production*). "I told Mr. Jenks "that the model I had was *an imperfect one*, and I "wanted him to make it *perfect in its proportions, so as* "*to serve as a standard for our work in future.* * * * "This conversation occurred in the fall of 1878."

"*329 x-Q.* What alteration in it did you require ?

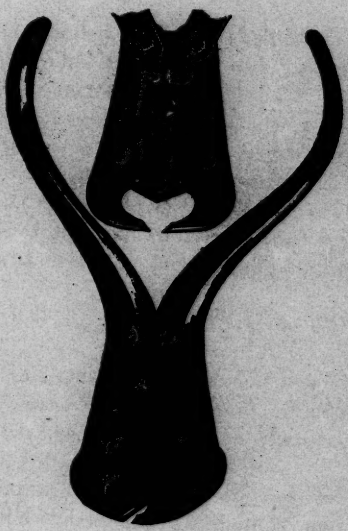
"*A.* They consisted mostly in the shape (outline) "and the accuracy of the work. The shanks of the "jaws were made a little longer for the purpose of in- "creasing the leverage. *The main point was to get it* "*perfect in measurement, and make the parts inter-* "*changeable*" (Rec., pp. 164, 165, x-Qs. 314 to 330).

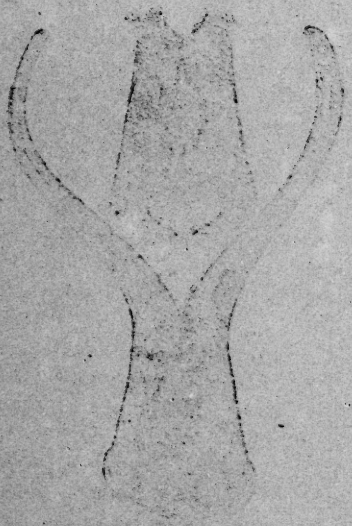
The cut on the circular issued by *Thos. G. Hall*, as president of the Interchangeable Tool Co. *in 1879*, shows the *Jenks model*. It has *no lips or gearing* between the handles (see cut).

This circular says :

"Of the many cutting nippers *heretofore* placed on "the market not one has supplied either of the two "great needs long felt by all who use them, viz.: *1st.* "*Increased power* without a clumsy and expensive in-

CUT FROM CIRCULAR, COMPLT.'S EXH. No. 6.





" crease of size. *2d.* That the construction of the " nippers should be such that any damage to the *cutting* " *jaw* or handle from wear or accident could be re- " paired.

" The HALL NIPPER meets these requirements fully, " *being constructed as shown in the cuts*, and *made per-* " *fectly interchangeable in all its parts* " (Complt.'s Ex. No. 6, Book of Exhibits, p. 9).

This public utterance of Thomas G. Hall contradicts all he has said on the subject of projecting " *lips* " in the *Jenks model.*

8. His counsel recalled him and asked:

" *Re-d. Q. 557.* What directions did you give Mr. " Johnson as to the making of that model?

" *A.* I gave him the various parts, and told him I " wanted it made *symmetrical in its proportions;* also, " to make it *interchangeable in all its parts*, and to make " it *more powerful by increasing* the length of the jaw " levers. I also told him to insert the spring in " NOTCHES in the jaws as far forward as possible," &c. (Rec., p. 186).

Hall swore April 3, 1884, referring to Johnson's lips:

" I *never* discussed the subject or *had any conversa-* " *tion with Mr. Johnson in reference to the matter* (Rec. " 145, Q. 143), attaches no importance whatever to it,' &c. (Rec., 152, Q. 185).

While it is apparent that *notches* are not *projecting lips*, and that Hall's statements, numbered 2 and 6, are false; his public utterance also shows that there were no " *notches* " in the Jenks model in any part of its jaws.

9. " *Defendant's Exhibit No. 8 Old Nipper.*" Hall says he made, *in 1879*, in Hudson street (he went there in that year). " It *contains the brass block for holding* " *the spring*—V-shaped spring—screw for holding the

" same, two holes in each jaw made for the insertion of " pins for holding the spring," &c.

It will be seen that here are two distinct devices for holding the spring in the same nipper, and one is slightly startled to find that Hall claimed the placing of the spring between the jaws in the seat and with the projections over the upper ends of the spring *as his invention* (Rec., 131, Q. 45), and that these *projections* were only $\frac{1}{32}$ of an inch shorter than in Complainant's Exhibit 3d (Rec., 129, Qs. 30, 31).

10. Defendants offer Hall's Patent No. 209,677, dated Nov. 5, 1878, in evidence, and Hall says they made from 6 to 12 dozen prior to February, 1879, like those shown in it. Neither in the specification nor in the drawings is there any hint of a *projection* or *lip* it is Defts.' Exh. No. 7. Complt.'s Exh. 4th. Book of Exhs., pp. 6-58).

Hall attaches no importance to them (Rec., 152, Q. 185).

William Q. Judge, defendants' attorney, says of the *Jenks model*, " *As I recollect it*, it had a projection " in the jaw which held in the spring " (Ans. to Q. 15).

Complainant's counsel called for the production of the model and objected to the above, but the witness, without ever stating that he *had seen it*, went on to state differences in construction, &c., &c., " *as he recollects.*"

" It was made under the direction and from *sketches* " furnished by Thomas G. Hall, one of the defendants " herein, and during the time the company's office was " in my office," by Moses C. Johnson, a workman in the employ of J. H. Jenks & Co., that " He called at the " office several times during the course of the work, " bringing the model as it progressed, and receiving " suggestions and instructions from Mr. Hall " (Rec., p. 117).

Thomas G. Hall was examined *after this witness* and made no mention whatever of these *sketches* or of any of these visits to Judge's office. Hall says he was at Jenks & Co.'s on that business a dozen or more times (Rec., 165, x-Q. 324), and shows that Judge must be mistaken.

Judge's testimony is full of hearsay, adoptions of suggesstions by his counsel (see "tooth" and recess"), and evidently incorrect statement when it was objected to (Rec., middle of p. 118).

Defendant's offer in evidence as originals, a pair of handles referred to by the witness and they are marked "*Defendant's Ex. Hall's Pin Gearing*," also "*Defendant's Ex. Pin and Hole Gearing*, and asked *28* "*Q.*: State, if you please, when Mr. Hall first showed "you a plan of gearing consisting of a pin in one "handle and a hole in the other, like this Exhibit "Hall's Pin and Hole Gearing?"

"*A.* In the early part of 1879, at my office; I made "a sketch then for him, and he made one also on the "same paper showing the pin and hole gearing and also "the tooth or ratchet gearing, or tooth and recess gear- "ing; *I want to cover that pin gearing;* that sketch I "produced on the Johnson Interference Case; it was "filed as an exhibit and I have not seen it since."

"30 Q. How early in the year 1879 did Mr. Hall "show you the pin and hole gearing?"

"A. *As early as March, 1879;* he *showed me both* at that interview.

"*Defendant's Ex. Hall's Pin and Hole Gearing*" was made at Broadnax's request in 1884 (Rec., 170 x-Q. 390).

"*Defendant's Ex. Hall's Pin Gearing*" was made at Broadnax's request in *1884* (Rec., 167, x-Q. 845.

The sketch above mentioned is put in this suit as "Defts. Exhibit No. 9, Lead Pencil Sketch," and if Hall showed him both of those *exhibits*, or any *other*

like them (231), one cannot conceive why any *sketch* on a doubtful piece of paper was ever made (see sketch opp. p. 59).

Hall says he does not know who made the other pencil marks on that sketch, nor when nor where they were made (Rec., 171, x-Q. 399).

Judge's defective memory is shown by his stating that Hall gave directions to Adams as early as February or March, 1879, and saying: "that's the best I can do" (Rec., 120, Q. 34,), and that Johnson was then employed as toolmaker by the company. Whereas Adams was first employed on *April 14, 1879*, and Johnson on April 20th, 1879 (Rec., 120, Qs. 34, 35).

On cross-examination (x-Q. 37) he says he knows nothing about the alteration of model nipper made by J. H. Jenks & Co., for the Inter. Tool Co.; that he was examined in the interference; that he talked with Hall and his counsel, and (x-Q. 50) shows that he had testified from statements made by Hall, and at x-Q. 54, asked: "By whose direction was the stamp, 'Hall's "Patent No. 2, November 5, 1878,' put on the nippers, "&c. Answers: I know nothing about the nipper, the "stamp or the admission" (Rec., 122).

This was a matter within his province as a lawyer.

Judge objects to be dragged into a critical discussion of the Defendant's Exhibit Pin and Hole gearing or give his reasons, because it might lead to a breach of courtesy, shows that the three and two pin gearing attempts were experiments made when Adams was foreman (Rec., p. 123), "in *February or March, 1879*," that subsequently one pin was cut off from each handle, and (x-Qs. 68, 70, p. 124) saw "J. M. Adams, foreman, "Thomas G. Hall, president and superintendent; "Moses C. Johnson, tool maker; filers and boys, "names unknown," doing this; "as my recollection "serves me, it was in February or March, 1879."

He further says, "*I am a skilled draughtsman, but I "am not a mechanic in any sense.*"

His testimony can hardly be called evidence.

James F. Oliver (deft. and petroleum broker) says, when "Defts.' Exh. No. 9, Lead Pencil Sketch" was made about April 1, 1879, a drawing of the *Kennedy Nipper* was shown (which Judge don't mention), and Hall said he had tried that and thought he could improve on it and made the sketch in the corner of the paper (Rec., 189, Qs. 10, 13, 15).

As to the "*lips*" claimed to have been in the Jenks model, he said in answer to

"22 Q. How was the spring arranged and held in "that nipper?

"*A.* It was a V-shaped spring, *held in position be-* "*tween the jaws by its own pressure against them.*

"*23 Q.* What was there to prevent the spring from "working up out of its seat between the jaws?

"*A.* A *projection or shoulder* at *the throat of the jaw.*

"*52 Q.* You say that the spring in the Jenks model "nipper was prevented from riding up by a *shoulder* "or *projection over its upper end* at the throat of the "jaw. How far did the shoulder in that nipper pro- "ject over the ends of the spring?

"*A.* I can't give the measurement of it, but it was "just enough to cover the thickness of the spring; *it* "*was a very slight projection.*

"*53 Q.* Was the projection *as long as the metal form-* "*ing the spring was thick*?

"A. It was.

"*54 Q.* How did the *shoulder* differ, if at all, from "the corresponding *shoulder* in Deft's. Exh. Hall's No. "2 Nipper?

"*A.* It was shorter."

This witness on cross-examination shows that he was *a bank teller in Brooklyn during 1879*, is not a mechanic (x-Q. 103), and says he went *to the shop* to keep himself familiar with what was being done in the business, as I was an officer of the company and had a considerable financial interest in it.

132 x-Q. If, therefore, you swore that "up to Jan- "uary 1, 1880, I had no active part in the company's "business; I had charge of its funds simply, and "visited its office for a short time about twice a week; "after January 1, 1880, I was its bookkeeper and did "the office work of the company," that was true, was it not?

A. It was.

During 1879 the *shop was in Hudson street* and the office at 71 Broadway, about a mile distance apart. He had said he left the bank in Brooklyn at about 4 P. M. (x-Q. 90), took three-quarters of an hour to reach the shop (in Hudson street), which closed regularly at 5:30 P. M., but during the summer of 1879 ran as late as 9 P. M. This was undoubtedly after Johnson's improvements were adopted for it was idle before (Rec., 200, x-Q. 98).

That this witness was instructed how to testify is evident by the adoption of the new term *shoulder* or *projection*, and by his confession of his actions after he had answered questions 22 and 24.

"138 x-Q. Have you read or heard read any part of "your prior testimony? Have you talked with any "one about it, *or the testimony you have given here;* and "if yea, with whom and when?

"A. I have read portions of it, and have heard some "conversation with my counsel with regard to it *dur- "ing the past few weeks at various times.*"

And his counsel is found putting into his mouth at Q. 52, after "shoulder or projection," the words "*over its upper end.*"

"*Shoulders or projections*" are not "*lips,*" nor are they "*notches.*"

Robert W. Crane, defendant's witness, says that he made three model nippers for Mr. Hall. "The third "one I made I filed the *edge* of the jaw, producing a

" small shoulder preventing the spring from traveling " up toward the edge of the jaws. I commenced it in " the summer —'78, finished it in the fall of '78, at " Harlen."

" *9 Q.* State if you please how the *shoulders* that held " the spring from riding up in that nipper differed from " the corresponding shoulders in this *model* ' Defend- " ant's Exhibit Hall's Pin-and-Hole Gearing ' ?

" A. It did not differ any ; the same as nipper shown " me, *with the exception of being a little lower down* than " this nipper. I *think it might be a little lower.* It " *might have been just the same*" (Rec. 229, Qs. 7 to 10.)

" Deft's. Exh. Hall's Pin and Hole Gearing" was made in 1884 at request of Broadwax, and as this witness calls it a *model* it is quite possible that witness Oliver may have referred to it when he testified after his conversation with the same counsel. It becomes probable in view of the fact that Hall took a *Crane model* to Jenks & Co.—to show how he wanted the *Jenks model* made—and showed it as a *sample* to " a Mr. *Curtis* " in March, 1879—with the Jenks model which Hall was not able to find since January, 1880.

This Crane model is not produced, but " Defts. Exh. Pin and Hole Gearing " that Hall swore on April 21, 1884, was made in 1884, was produced by the same counsel of Oliver.

It recalls Adams' experiment in April, 1879, of bending the upper ends of the V spring outward and inserting them into a *recess*, and of which Hall said he had tried something similar but it would not work (Rec., 39–40 ; x-Qs. 272 to 278).

The testimony of defendants' witnesses seems to have been manufactured, as well as their exhibits, to meet their present emergency—to confuse the Court below, and put on a false appearance of evidence—like the *undated* petition, specification, claim and drawing of Thomas G. Hall, prepared by Broadnax, and signed by Hall at Milford, *in July, 1880*, although Hall swears

he did not till October, 1880 (Rec., 138, Q. 103), hear of Johnson's claim to the invention described, and showing *lips* projecting over and far beyond the ends of the spring. These papers were used in the Interference in 1881, and marked as "Hall's Exhibits, Nos. 14 and 15, J. E. B., October 12, 1881" (Rec., 144, Qs. 128, to 132), and are now put in this suit, and are found in the Book of Exhibits at pages 53 and 54. Hall says on cross-examination that he heard that Johnson had applied for a patent in August, 1880 (Rec., 176, x-Q. 458).

This specification, claim and drawing prepared by Broadnax contrasts with Hall's Reissued Patent (Book of Exhibits, 56).

B. *As to the* ROUNDED PRONG AND NOTCH *always-in-engagement gearing interlocking the handles.*

Hall swears that he *invented this* and puts in exhibits to show that cog and other gearings superior to his abortive experiments were as old as the hills—but not one that shows the principle and shape of Johnson's. He says the invention was "*essentially mine*" (Rec., 131, Q. 46).

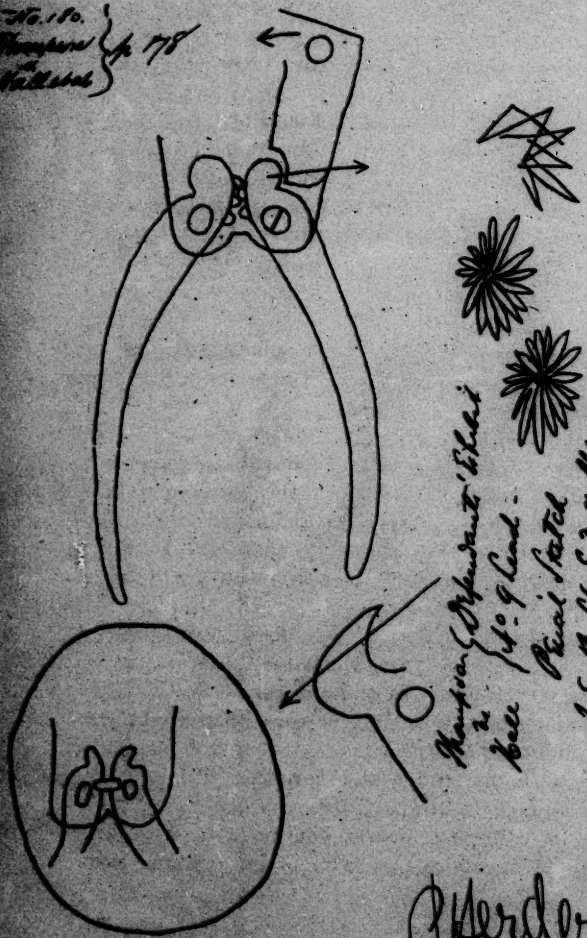
To "*Q.* 123. What, if anything, did Mr. Johnson do "towards perfecting the nipper?

"A. All I *ever knew him* to do in the matter was to "reduce the working of the gearing to a perfect shape "(Rec., p. 141).

Does not Hall refer here to Johnson's "WORKING MOVEMENT?" "Mr. Johnson altered the handles" (in the alteration of the Jenks model!) "making the gearing" "Were you present when he did this, from the begin-"ning to the end?" "Not continuously." "Will you "explain your last answer?" I was not by him all

Halli Exhibit - No 9
Sep. 5th 1881 W.H.B.

No. 180.
Thompson
v.
Hallebeck } p. 178



Thompson v. Hall } Defendant's Exhibit No. 9 Lead.
Penal Statch
J. E. B. St. Ex. 7 Abl. 1884.

P Herder Esq

" the time he was doing the work, but saw him several " times working on it, and he showed it to me at its " completion (Rec. 169, x-Qs. 275 to 382).

" x-Q. 386. Did you show Johnson the sketch made " as you state by Judge (Defendant's Exhibit No. 9, " Lead Pencil Sketch)?

" A. Not to my recollection.

" x-Q. 387. Why did you not show *that sketch* to Mr. " Johnson?

" A. I suppose because I thought it was unneces- " sary.

" x-Q. 388. Did you not think it would help?

" I was not in the habit of giving directions *personal-* " *ly* to the workmen. Sketch was shown to Mr. Adams " and I directed him to have Mr. Johnson do the work. " I simply looked upon the work afterwards as it pro- " gressed,"

" x-Q. 389. Why did you not give that sketch to Mr. " Adams?

" A. In the first place, it was not mine to give. It " never came into my possession. I never took it from " Mr. Judge's office."

Before this he said that the first I heard of Johnson's having claimed the invention was in the latter part of *August* or first of *September, 1880*, and asked:

" x-Q. 282. Do you mean to say that you had not " known before August, 1880, that Johnson had made " those improvements?

" Answer. I mean that it was the first knowledge I " had that *Mr. Johnson claimed them as his invention.*

Defendant's Exhibit No. 9, Lead Pencil Sketch.

The character of this exhibit is worse than doubtful, and according to *Hall's description* the sketch said to have been made by Judge is a forgery. This is said to have been made in March, 1879.

" *55 Q.* In your last answer you refer to *a sketch* " made by Mr. Judge *of a plan* of interlocking the

"handles. Please to state what that plan of inter-
"locking the handles was?

"*A.* It was *the insertion of two pins in one handle "and one pin in the other* opposite the fulcra" (Rec., 132).

The "plan" now shows the lines of two nipper handles without any gearing, and *on* those lines three rounded cogs drawn on one handle and two rounded cogs on the other. By whom or when this was done cannot be told, but it seems to have been suggested by Johnson's gearing in ignorance of the fact that there was one unnecessary and superfluous cog on each handle (Book of Exhibits, p. 73).

Further doubt is cast upon this exhibit by Hall's swearing that at the time it was made (Rec., 167, x-Q. 354), he was, though the I. T. Co. was idle for want of money, dealing with a Mr. Curtis for nippers that *were to be manufactured.* That he "showed him the crane "sample, also the Jenk's Model Nipper * * * and "said to him that the nippers to be made by the com-"pany would be in appearance like the Jenks model. "This is all I can recollect at this time" (Rec., 16, x-Q. 372).

He does not say a word about gearing the handles, and he evidently was still under the idea expressed to Jenks and shown on his circular, which, probably, brought this Mr. Curtis to him. He says the negotiations never amounted to anything, and he thinks that he never saw Mr. Curtis again. (Curtis did not want to buy failures.)

It is very certain that he has not produced him as a witness, the Crane sample or the Jenks model.

Hall's Brass Nipper.

To strengthen his claim Hall says that he conceived the idea of pin and hole gearing in 1876, tested it on a a *brass nipper* January 1, 1877, and *showed it to Crane and Judge* about that time.

His counsel having called his attention to the fact

that he had sworn he did not know Judge till 1878, he changes the date to the *fall of 1878* (Rec., 131, Qs. 48 to 54).

On cross-examination Hall says, he has not seen his brass nipper with the pin and hole gearing for five years, did not attach any value to it and "don't recall having shown it to any one" (Rec., 166, x-Qs. 341 to 344).

Crane (R. W.), defendant's witness, says he never made or saw any nippers with a pin and hole gearing or any other kind of gearing between the handles before he saw one at Frasse's (Rec., 232, x-Q. 38).

Hall shows that Frasse's nipper was delivered to Frasse a short time (August) (Q. 107) prior to September, 1879 (Rec., 179, x-Qs. 491, &c.). Frasse's nipper was shown in his window as Defendant's Exhibit No. 20, and the pins were put in it as requested by *Johnson*. It was a large nipper, and not such as the Int. Tool Co. were making by machinery. It is Defendant's Exhibit No. 20 Large Nipper (Rec., 178, x-Qs. 485–8).

Hall was asked, why he did not embody his idea (of gearing) in his patent of November 5, 1878, and he says, "my idea in the first place was that it would add "considerable to the expense of manufacturing the "tool. I also thought that by *making them perfectly* "*uniform it would be unnecessary*" (Rec., 143, Q. 126).

Of the Metallic Exhibits with Pins in Them.

It is useless to weary the Court with further references to these. In no one case is Hall shown to have made an efficient and practical gearing in his experiments, and after Adams came Hall says he did not act as manager of the mechanical work of the company (Rec., 180, x-Qs. 502, 505).

Hall's Erroneous Statements to H. G. Thompson.

Extracted from the mass, they resemble very strongly in their result the obtaining of a boiler engine, &c., by false pretenses in January, 1880, for stock of this com-

pany, which had to borrow $150 in October. 1879, to apply for the French patent (Rec., 158, x-Qs. 243–244).

Hall says it was in *the fall of 1880* that he told Mr. Thompson that he was the inventor of the improvements on the nipper (Rec., 160, x-Q. 267), but this cannot be true, for he admits that Thompson told him that (certain of) his statements were *erroneous* when he demanded, in *July, 1880*, the return of the boiler, &c.

Hall testifies that the company went into bankruptcy in *August*, 1880, and made an assignment, and that Mr. Thompson attached (replevined?) the boiler, engine, &c. (Rec., 64, x-Q. 309, and on pp. 135, 136, Re-d. Q. 552).

Henry S. Rogers, defendants' witness, became their assignee in some way, *and put together* and sold these infringing nippers. He produces and defendants put in evidence an exhibit called "Defts.' Exh. Rogers Settlement with Thompson" (Rec., 220; Qs. 26, 27). This paper showed that Thompson's property was returned with costs, &c. It was signed by Thomas G. Hall under advice of his counsel, William Stoddard, Esq., and contains the following clause:

"5th. *That the said Henry G. Thompson hereby "agrees not to commence any suits against Henry S. "Rogers aforesaid, for any acts of his while acting as "trustee of said estate, whether in manufacturing goods "or otherwise.*"

Rogers shows by his answers that he sought to protect himself against suits for infringements (Rec., 227; x-Qs. 88 to 94).

This amounts to a confession by defendants' own representatives that they had been guilty of infringement.

James F. Oliver, defendant, says that *after Adams* was employed he told him they wanted him to make a model and to make nippers with "some kind of a gear

connection," and *that after Johnson was* employed on April 20, 1879, *Johnson made* such gear connection" (Rec., top of 190).

Says he saw Johnson at work upon *parts of the model in his vise, working on them with a file.* Never saw him make anything from beginning to end (Rec., 204; x-Qs. 140 to 142).

He says that Johnson made the *alterations* on the Jenks model, completing them about the end of May, 1879 (Rec., pp. 205 to 207).

As Hall has testified that Johnson could not possibly make the *skeleton jaws of Complainants' Exhibit C* out of the old forgings furnished, which were drilled, it is apparent that Johnson was not, when Oliver saw him, at work on the *drilled jaws* of the *Jenks model*, which had been made of these old forgings. A workman would not take the *standard model* of the company to cut up when he had undrilled similar parts of a nipper at hand.

Oliver must have seen Johnson working at Complainants' Exhibit C, and when re-examined on surrebuttal says of Complainant's Exhibit C:

"I never saw the *model* there and *can identify none of its* parts."

"As to my having seen *this model* there they are not "true. *I have no recollection of having seen either of* "*the parts. It is possible that I may have seen them* "*without recollecting them*" (Rec., 253).

Thomas G. Hall, when asked whether he had seen these *parts* of Exhibit C before they were put in evidence in the interference case, says guardedly, "*No, not to my knowledge*" (Rec., 162, x-Qs. 285–6).

David L. Harris, defendant and stockholder since October, 1878, who after Oct. 7, 1879, loaned the company $150 to take out the French patent on the strength of this new gearing (Rec., 216, top); saw Oliver, Hall, Gustam and others standing by Johnson when he was

at work *before July, 1879.* "Johnson was supposed to be an *expert*" (*Ib.*, x-Qs. 72 to 76).

"79 x-Q. He (Adams) might have showed parts of "the work. I took no notice of them, not being a "mechanic.

"88 x-Q. Did you ever see Mr. Thomas G. Hall "make any of the improvements on the nipper?

"A. No, sir.

"x-Q. Did you ever see Mr. Thomas G. Hall show "you any model made by himself of any such improve-"ments?

"A. No, sir."

By the defendant's own testimony it is apparent that Moses C. Johnson made *all of the improvements* described and claimed by him in his Complainant's Patent Exhibit 2d, and the claim of Thomas G. Hall to be the inventor of Johnson's combination is baseless and absurd.

POINTS.

I.

Moses C. Johnson was the first and original inventor of the improved cutting pliers and the combination described and claimed in and shown on the drawings annexed to Letters Patent No. 232,985, granted October 5, 1880, to his assignee the complainant, and complainant's bill of complaint properly setting forth complainant's right and charging infringement should not have been dismissed.

In *Johnson's* specification he describes his invention as an improvement on *that class of pliers* represented in the United States Patent No. 209,677, granted to Thomas G. Hall, November 5, 1878, and shown on the drawings annexed, of which he describes some of the defects which caused its failure in use, and contrasts Hall's nipper with his cutting pliers. Beginning at line 25 of the specification of his patent (Complainant's Exhibit 2) he says: "one of the objects of my inven- "tion is to construct a stiff pair of pliers, or pliers in "which the hand and jaw levers shall each be *com-* "*pelled to move positively* in an opposite direction to "the movement of its fellow, or a pair of pliers in "which the tool body shall not of itself swing or vibrate "upon the pins or studs holding the jaw levers."

This compelled positive motion Hall's patented nipper does not have, nor any means for providing it.

32. "In the patent (Hall's) above referred to, the end "of the wire or other thing cut off by the cutters drops "into and injures the spring that opens the jaw levers. "*This I* obviate by providing each jaw lever with a "*lip* to cover or bridge the space between the jaws as "the jaw levers are closed.

"My invention consists in the combination and "arrangement of parts for effecting these ends as "hereinafter specified and claimed.

At line 58. "These *lips* also serve another essential "purpose, viz., that of holding the ends of the spring "from displacement and *obviating the employment of a* "*separate pin* or stud to hold the said spring at one "end as heretofore common.

At line 72. "In order to move the *jaw levers* "*equally at all times* and prevent the jaw levers and "body of the pliers turning on the handles I have "provided one hand lever with a prong *m* having a "*rounded end* that enters a *rounded notch* in the "opposite lever. This one prong and notch are *always* "*in engagement* and so connect the two levers that the

"body of the pliers *cannot vibrate* on the screws 4, 5, "*but, on the contrary*, the two levers may turn each on "its own pivot, both levers always turning the same, "but in exactly opposite directions. *This connection* "between the two hand levers insures a stiff pair "of pliers that can be handled more readily and "accurately than the old form of cutting pliers referred "to, and which are more positive in the movement of "the cutting jaws."

Johnson's Claim.

"The body composed of the side plates *a b*, the in- "dependent fulcra 2, 3, 4, 5, for the jaw leuers and "hand levers, the jaw levers provided with cutting "edges and with LIPS *e*, and the hand levers having "short arms *g' h'* and a *prong and notch always in en-* "*gagement* as described, combined with the V-shaped "spring held as described by the *lips* of the jaw levers "all as and for the purpose set forth."

(This patent was put in evidence as Complainants Exhibit 2°; Book of Exhibits, pp. 4 to 6).

Johnson's rounded prong and notch gearing by its form is kept always in engagement or *constant touch* of the exterior surfaces, and adds the force of *friction* to the lateral strength of the prong when his "cutting pliers" or nippers is used.

His new device of the *lips* projecting over the V spring performs *two* functions while the nipper is used. *First*, they keep the spring in place by holding its upper ends. *Second*, They prevent clippings of wire from falling into the spring and preventing the cutting jaws from closing, save at the cost of breaking or injuring the spring. They also hold the spring without fastening in the box formed by the side plates and lips, and so save the expense of the slotted brass block—drilled hole in the plate and screw used by Hall in his nippers.

Cheaper cost of Manufacturing.

Johnson's rounded prong and notch gearing in the handles, and "*projecting lips*" are so devised that they may be and are in practice held in vise jaws, and cut by mills of the proper shape by the dozen at a time, from the rough forgings since Dec. 1, 1879. (Rec., 21, Q. 74.

Johnson's invention enables the manufacturer to produce with mechanical accuracy a new and improved cutting plier or nipper which will act automatically, without interruption or breakage, and which is *stronger, cheaper* and absolutely certain in action. It superseded those made by defendant Hall, Crane and the Interchangeable Tool Company, which did not work satisfactorily for want of "uniformity in the movement of the jaws, and were commercial and mechanical failures" (Rec., 128, Qs. 22 to 24 of Hall's Testy.; Rec., 230, Qs. 22 to 27 of Crane's, and of the other defendants *passim.*

Its Utility.

Defendants show this by proving by Hall that they made and sold "about six dozen per working day, from *July 1, 1879, to Dec. 15, 1879*" (Rec., 128, Q. 17), and by Oliver from *25,000* to 30,000 (Rec., 200, x-Q. 167).

Its Patentability.

That Johnson's invention was patentable is evident from the decision of this Court in Hailes vs. Van Wormer, 20 Wall., 353 (approved in XIV. Otto, 317–127, U. S. R., 375, etc.). The Court says:

"All the devices of which the alleged combination is "made are confessedly old" (Johnson's *lips* are new) "no claim is made for any one of them singly as an "independent invention. It must be conceded that a "*new combination*, if it produces *new and useful results* "is patentable, though all the constituents of the com- "bination were well known and in common use before

" the combination was made. But the *results must be* " *the product of the combination* and not a mere aggre- " gate of several results, each the complete product of " one of the combined elements," etc.

Johnson's improved nipper would make one *certain cut* with the handles geared with the prong and notch, but would be subject to *interruptions and damage without the lips. Together they give as their result, continuously, certain action to the cutting pliers.*

Decision of Commissioner of Patents.

Decision of Secretary of Interior on *appeal taken by Thomas G. Hall* from Commissioner, Butterworth vs. Hoe, 112 U. S., 66.

(M. C. Johnson) (J. M. Adams) and (E. A. Whittelsey). All swear that Johnson made complaints Exhibit C in May, 1879, that it showed his invention, the combination described in complainant's letters patent; that it was adopted by the Interchangeable Tool Co., and all their No. 2 sized nippers have been made from it since July 1, 1879.

The further fact appears from all the testimony that the Interchangeable Tool Co., which was idle and made no nippers up to April 23d, 1879, in *May* of that year ordered milling machines and new dies and forgings, and made preparations for manufacturing these No. No. 2 nippers wholesale, and that the company made and sold from 25,000 to 30,000 from July 1, 1879, to May 1, 1880.

The defendant's witnesses, who pretend to any knowledge on the subject, say that these No. 2 size nippers were not made in conformity to the Complainant's Exhibit C, but in conformity to the Jenks model, or Jenks' model nippers altered by Johnson.

That they had a Jenks model, a nipper made for them as a standard for their future work is true, for this was made for them by Moses C. Johnson at Jenks & Co.'s shop, whence it derives its name.

Defendants, however, do not produce when called for and do not satisfactorily account for it.

As Complainant's Exhibit C is only a flat pair of templates or working movement, and duplicate parts of a full model were made by Johnson, from which to sink the dies for the new forgings, it is more than probable that these "duplicate parts," so called by Hall, "extra parts" by Adams, were made from some unsold nipper of the Jenks model style by Johnson. He may have made them from the rough forgings, but as Hall says that in the last of May or first of June he took those "duplicate parts" to Hartford for sinking the dies, Johnson may well have used the parts of a nipper.

Hall says he dovetailed a bit of metal in the side of the handles, and again that he brazed it in. It is immaterial which. Johnson did it and made all the alterations, as Hall and Oliver testify, and no one of them ever pretends to have given him any instructions or directions. Hall says in one place that Johnson "perfected the gearing" (p. 58) and in another that he "reduced the gearing to a proper shape" (p. 55); in another that he made the improvements in the nipper.

Both Hall and Oliver testify that they never saw Johnson make any alteration completely—but saw him making them on the Jenks' model nipper—

Oliver says he saw him working on it (meaning parts of it) in his vise, and also parts in his hands with a file, but cannot say what except that he put the gearing in the handles. That he made the duplicate handle and jaw.

This no competent tool maker, seeking to make duplicate parts for dies and forgings that could be cut into shape with mills would attempt to do without some guide, Johnson says he made them from Exhibit C, as to the inside edges, which show the improvements and so says Adams.

Whittelsey says he made the templates and mills from Complainant's Exhibit C (p. 33).

The statements of the two sets of witnesses are not irreconcilable—Johnson, Adams and Whittelsey knew all about the matter, and have no reason to be untruthful.

Hall, after Adams came as foreman, had nothing to do with the mechanical work and attended to the general business, gave no orders and saw no more than he chose.

His statements are not reliable, and he is shown by his witness Kennelly to have had a model in the Colt's Patent Fire Arms Company's shop on May 26, 1882, which he never mentions. This may be the Jenks model—with the duplicate parts, which Johnson says he made as additions thereto.

Oliver, who was a bank teller in Brooklyn and about twice a week went to the shop or the office of the company for an hour about 5 P. M. (it closed at 5:30 in May), could not identify any parts and evidently did not know what Johnson was doing when he saw him working.

Though a slightly too willing witness, he shows that Johnson never was " directed " or instructed.

As all the improved nippers have both the prong and notch friction gearing and " projecting lips " and no one but Johnson makes out a shadow of a claim to them—either or both—we may safely conclude that Johnson was the maker (Hall says so, p. 59) of these improvements and the inventor of the combination in which they play such prominent parts.

In this view his title to the invention does not depend on the existence of Complainant's Exhibit C, and it can be adopted without impugning the veracity of any of the witnesses.

Addendum to Point I.

The following citations of the testimony of defendants are given to show that Moses C. Johnson was the author of the invention claimed by him, and that the defendants, whether in ignorant mistake or by intention, describe it as *alterations of the Jenks model nipper*. Whether they were made after and in accordance with the "*working movement*" or "templates" put in evidence as Complainant's Exhibit C, or not, the citations show these *alterations* are *the improvements*, and that Moses C. Johnson is their author. There is no pretence that Johnson was even directed to make them. Complainant's counsel, therefore, wishes these citations to be read in connection with his "*First Point.*"

Defendant Thomas G. Hall testifies as follows:

38 Q. Please to give the name of the workman who made that Jencks Model Nipper?

A. Moses Carlisle Johnson made the model under my direction.

39 Q. What, if any, alterations were afterwards made to that nipper; I mean the Jenks Model Nipper?

A. Pieces of metal were brazed on the inside of the handles opposite the fulcra for the purpose of giving sufficient metal for making a gear connection between the handles.

40 Q. What kind of a gear connection do you refer to?

A. It was a prong and notch.

41 Q. How did it differ, if at all, from the prong and notch gearing between the handles in Complainants' Exhibit 3d?

A. There was no difference; it was the same (Rec., 180).

75 Q. After the Jenks' Model Nipper was altered and the tooth-and-notch gearing put between the handles, as you have stated, what use was made of it?

Question as to Jencks' Model objected to, because that model was called for, and not produced, and its absence not satisfactorily explained.

A. It was used as the model and standard for making the gauges and tools for manufacturing the nippers.

76 Q. After the model nipper was completed, as you have stated, what was done next towards the manufacture of the nipper?

A. The next step taken was the making of templates from that model. These templates were used for the purpose of making the milling tools and mills.

77 Q. State, if you please, how the forgings were made for these nippers?

A. In the first place, duplicate parts were made of the jaw and handle, one of each; these duplicates were made somewhat larger, in every respect, than the parts of the model. These duplicates were taken to the Colts Fire Arms Company, at Hartford, for the purpose of having dies made to forge similar pieces, which they subsequently did. The forgings were made in drops, these dies serving as a matrix.

All that is hearsay in the above answer objected to (Rec., 154).

128 Q. What, if anything, did Mr. Johnson do towards perfecting the nipper?

Objected to as plainly not within witness' knowledge.

A. All I ever knew him to do in the matter was to reduce the working of the gearing to a perfect shape. (Rec., 141).

As to the "lips:"

185 Q. What, if any, importance did you, or do you or any of the officers of the Interchangeable Tool Company, attach to the lip over the head of the spring projecting any further than is just necessary to hold the spring in position?

Objected to as leading and calling for hearsay and immaterial.

A. As far as I am concerned, I attach no importance whatever to it. I think the officers of the company agree with me, for I have never heard any of them attach any importance to it (Rec., 152).

282 x-Q. Do you mean to say that you had not known before August, 1880, that Johnson had made those improvements?

A. I mean that it was the first knowledge that I had that Mr. Johnson claimed them as his invention (Rec., 161).

290 x-Q. State when, where, and by whom, and what alterations were made in the Model No. 2 (Jencks' Model).

A. The alterations were made about the 1st of May, 1879, by Moses C. Johnson, at 57 Hudson street, and consisted in interlocking the handles.

291 x-Q. How often were you in the shop in Hudson street during this period of alterations?

A. Every day.

292 x-Q. Did you see what work was being done in the way of

making these alterations? Did any one show you any part of the work, and who showed you?

A. I saw Mr. Johnson at work on the handles, and saw them when completed; he dovetailed pieces of metal in the handle where the fulcrum is, so as to get stock sufficient to make the prong and notch, which forms the gearing. That is the only alteration on the Jencks model (Rec., 162).

379 x-Q. What was the first thing done in the alteration of the Jencks model, when, where and by whom was it done?

A. Dovetailing of pieces of metal on the inside of the handle opposite the fulcrum-hole and the making of a gearing; that was the first part of 1879, at the shop in Hudson street; work was done by Moses C. Johnson.

380 x-Q. Were you present when he did this from the beginning to the end?

A. Not continuously.

381 x-Q. Will you explain your last answer?

A. I was not by him all the time he was doing the work, but saw him several times working on it; and he showed it to me at its completion (Rec., 169).

382 x-Q. What was the shape and material of these bits of metal, which you say were dovetailed, and how was the dovetailing done?

A. It was a small piece of steel; it was a square piece of steel with a dovetail fitted into the inside of the handle. It was brazed in, to the best of my recollection.

383 x-Q. Did you see this done?

A. I saw Mr. Johnson fitting the dovetail in.

412 x-Q. In question 87, which I read to you, reference is made to a "duplicate model"; what became of that, and who made it?

Counsel reads question.

A. The duplicate model consisted of a single handle and a single jaw; they were given to the Colts Arms Company, about May, 1879. I suppose they have them yet. Moses C. Johnson made the duplicates (Rec., 172).

513 x-Q. You have testified that Whitlesey made the templates, Defendant's Exhibit Templates, did not Moses C. Johnson make a pair of templates for the company?

A. I think he did, but they were not for the same purpose as Defendant's Exhibit Templates.

514 x-Q. For what purpose were Johnson's templates made?

A. They were made to conform to the gearing after the Jencks Model, after Johnson had dove-tailed the pieces onto the handles and made the gear connection. That was done the latter part of April or first of May, 1879. They were made as a gauge for making the milling tools. We probably have them in the factory at the present time—am not sure.

515 x-Q. Will you p:oduce these templates (made, as you say, by Johnson) before the magistrate?

A. I will not promise to, as I really do not know that I can do so. I will if I can (Rec., 181).

JAMES F. OLIVER, defendant, after showing in his answer to direct question 10, says:

A. About the first of April, 1879, I had a conversation at the office of William Q. Judge, with Mr. Hall and Mr. Judge, relative to the perfecting of the nipper. The Kennedy Nipper was referred to in that conversation and Mr. Judge and I asked Mr. Hall why we could not use a gear connection between the handles similar to that shown in the Kennedy Nipper. Mr. Hall said he had tried it and thought he could improve upon it. He made a sketch showing a pin-and-hole connection between the handles, and Mr. Judge also made a sketch showing a gear connection between the handles, and we thereupon, all three of us, decided that we must adopt some plan similar to that shown in the drawings there made. Shortly after, or about the 10th of April, 1879, Mr. James M. Adams was employed by the company to take charge of its shop and superintend the perfection of the nipper and the making of tools with which to manufacture it. After he had been in the company's employ two or three days I told him at the shop in Hudson street that we wanted him to make a model and to manufacture the nipper with some kind of gear connection between the handles, and that Mr. Hall was the president of the company, and he (Adams) would receive orders from Mr. Hall. About a week later Mr. Johnson (Moses C.) was employed by the company at Mr. Adams' request to assist him in making models, mechanical drawings and tools. A few days after Mr. Johnson's engagement Mr. Adams showed me a pair of nippers having pins inserted between the handles to form a gear connection, which pins, he told me, he had put in himself. A model nipper which had been made for the company by Messrs. Jencks & Co. was then altered so as to have a gear connection between the handles, consisting of one tooth on one side and two on the other. The work of altering this model was done by Mr. Johnson, whom I saw at work upon it a number of times. When completed this model was used as a pattern from which to make all of the special tools for the manufacture of the No. 2 nipper.

25 Q. Did you see Mr. Johnson at work altering the Jencks Model for the purpose of making the gear connection between the handles?

A. Yes.

26 Q. In what way did he make the alteration?

A. He dovetailed pieces of metal into the inside of the handles in

order to have the necessary stock from which to make the projecting-teeth (Rec., 191).

29 Q. After the Jencks Model Nipper was altered, as you have stated, did the company have new dies made in which to make their forgings?

A. I saw new model handles which were made for the use of the Colts Arms Company in altering dies. I did not see the dies altered, but saw a letter from the Colts Arms Company stating, substantially, that our orders, as to alterations, had been received and would be acted upon.

30 Q. When was the Jencks Model Nipper completed as altered by Johnson?

A. I cannot fix the date precisely. I think it was about the middle of May, 1879 (Rec., 192).

60 Q. You have said that a model nipper handle was made to go to the Colt's Arms Company by which to make the new dies. What, if anything, was done towards making a model by which to make new dies for the jaws of the nipper?

A. A *new jaw model* was made which was shown to me by Mr. Johnson (Rec., 195).

180 R-d Q. State, as near as you can recollect, when the alterations on the Jencks Model Nipper were completed?

A. About the end of May, 1879 (Rec., 207).

On cross-examination:

103 x-Q. Are you a mechanic?

A. I am not.

104 x-Q. Were you in charge of any part of the mechanical work of the shop or of the company?

A. No, not directly; I may say not at all (Rec., 200).

133 x-Q. If, therefore, you swore that "up to January 1, 1880, I "had no active part in the company's business. I had charge of "its funds simply, and visited its office for a short time about twice "a week; after January 1, 1880, I was its book-keeper and did the "office work of the company." That was true, was it not?

A. It was.

141 x-Q. What was the first alteration that you saw Mr. Johnson make on the Jencks model?

A. I never saw him make anything from beginning to end, but saw him with parts of the model in his vise and in his hands working upon them with a file.

163 x-Q. What alterations did you see Mr. Johnson make in the Jencks model.

A. I saw him make no alteration completely, but saw him at work making alterations.

164 x-Q. What alterations did you see him at work on first?

A. Making teeth on a handle.

165 x-Q. How many teeth was he making?

A. Cannot say; it was one of the handles, cannot say which.

166 x-Q. Was, or was not, the Jencks model, when altered, used by the company as a model, and what for?

A. It was; and for making special tools and gauges for use in the manufacture of nippers like it.

167 x-Q. Were many such nippers made, and what was done with them?

A. A great many, about thirty thousand, were made; they were sold.

176 x-Q. Do you recollect any other alterations in the Jencks model beside re-cutting the teeth?

A. Yes.

177 x-Q. Have you had your recollection refreshed on this point since your examination in the interference case, and by whom?

A. I have, by my own reflection and conversation with my counsel.

From the foregoing citations it is evident that Thomas G. Hall's observations were very limited and wilfully so.

That Oliver was ignorant of what he saw Johnson doing, that he gives two dates for the completion of the alterations of the Jenks model nipper, viz., the middle of May, 1879, and the end of May, 1879.

Moses C. Johnson says his "*working movement*," Complainant's Exhibit C, was completed between the 10th and 20th of May, 1879, and about the same date this witness testifies to the completion of Johnson's *alterations*. No one pretends to have given him any instructions or directions as to the lips embodied. All agree that he perfected the gearing and the 30,000 nippers had the *two* improvements, and whether the altered parts of Jenks' model nipper were copies of the parts of Complainant's Exhibit C, or original devices, they were original with Johnson.

It is evident from defendant's own testimony that he was the inventor of the combination, the other parts being old, and the complainant was entitled to his decree as Johnson's assignee.

II.

There is positive and disinterested evidence that Moses C. Johnson made his working movement, Complainant's Exhibit C, in May, 1879, and there is none that he made it subsequently to his leaving the employment of the Interchangeable Tool Company.

The testimony of **Moses C. Johnson.** who sold his invention for cash and stock in the company, is positive and was not shaken. He gives the history of his invention, and of his opportunities for studying the defects which it remedied, and it is admitted that he had the necessary ability to do so.

Johnson was employed April 20, 1879, six days after Adams, at $3.25 a day.

The nippers of the company were unsaleable because of their lack of principle in construction. The company did not know how to remedy it, and Adams, their foreman, could go no further than to make Complainant's Exhibit D, in May, 1879.

The defendants acquiesce in that date, and use the Exhibit D to show that Johnson invented nothing, because he was shown that Exhibit D, and instructed by Adams to make the gearing *in one cut* while making his Complainant's Exhibit C.

Johnson says he made his "*working movement*," Complainant's Exhibit C, between the 10th and 20th of May, 1879, to show his invention; that it was taken apart and that mills were made from it and templates to form mills by; that it was immediately afterwards adopted by the company.

> Hall says Johnson "*perfected the gearing*," and again, "*reduced the working of the gearing to a perfect shape*" (p. 58, *supra*), and that he attaches no importance to the lips (Rec., 152, Q. 185).

"That Johnson made "*alterations*" *on the Jenks model*, that "*duplicate parts*" were made, which he took to Hartford, Conn., to have dies made from for the new forgings required (Rec., 135, *et passim.*)

These new forgings were delivered in May or June, 1879.

While Hall was doing this and the new forgings were being prepared, templates to form the cutting outline of mills and mills were made, which cut the jaws and handles of the improved nippers from these new forgings.

About or on the 1st of July, 1879, the first complete improved nipper was made by these mills, and between that date and May 1, 1880, between 25,000 and 30,000 of the No. 2 size nippers were made and sold. Every one of these had the rounded prong and notch "*perfected gearing*" made by Moses C. Johnson. Every one of them had his projecting lips, though these were shortened one-thirty-second to one-sixty-fourth of an inch (Hall says) between December 1,1879, and January 1, 1880.

All had these, the main features of Johnson's "working movement" (Complainant's Exhibit C) as well as side plates without the centre hole.

Johnson was cross-examined as to mill marks on one of the jaws of Exhibit C, and says, "I filed *the jaws* of Exhibit C. They were not milled," and shows how he used *that one jaw* to locate his cuts, and that probably the mill touched it, &c. (p. 22, Rec. 101, x-Int. 324, &c).

Johnson's deposition was taken in November, 1881, when the templates of the company were accessible, but he was not asked to try one on this jaw.

"Hall's *Exhibit 10*" was shown Johnson (Rec., 101, x-Q. 328) as an exhibit in the interference. When, after the decision of Thomas G. Hall's appeal from the decision of the Commissioner of Patents to the Secretary of the Interior on March 13th, 1884, a box of exhibits

was forwarded to counsel from the Patent Office March 24, 1884, with a list of those used in the interference, and opened and examined by counsel for both parties. Exhibit No. 10 was not found, nor has any duplicate ever been produced.

James M. Adams, a disinterested witness, defendants' foreman, but poor mechanic (discharged by them for incompetency), and afterwards an editor, identifies Complainant's Exhibit C by the *mill marks* and letter W *on one of its* jaws.

He swears positively that Johnson made Complainant's Exhibit C in May, 1879, from the brass for handles he gave him and old jaw forgings.

Adams says he made Complainant's Exhibit D in May, 1879, and defendants do not question it. He also says Johnson began Exhibit C before he made Exhibit D, and finished Exhibit C some two weeks afterwards.

Defendants cross-examined Adams in relation to Exhibit D, to show that Johnson invented nothing in making his Exhibit C. To this end they quote his answers to x-Qs. 268-269 in the interference deposition, that he told Johnson to take Exhibit D and so construct the interlocking arrangement as to make it with one cut," &c. (Rec., 49, x-Q. 337).

As Complainant's Exhibit C is the only model produced by either side which has a gearing which could be produced with one cut, and all the nippers manufactured by the company since July 1, 1879, have it, the cross-examination tends to show that they must have been made in conformity to Exhibit C.

On his re-direct Adams says he has not the least doubt that Complainant's Exhibit C was made by Johnson in May, 1879, and repeats that Exhibit C was begun before Exhibit D.

Elbert A. Whittelsey is shown by his testimony to be a perfectly fair witness. He was employed by the Inter. Tool Co. April 23, 1879, and

roomed with Johnson. He says he first saw Complainant's Exhibit C in the Interchangeable Tool Co.'s shop two or three weeks after they started, and that it is the template made by M. C. Johnson to illustrate the action of the nipper. That it was completed about the middle of May, 1879 (Rec., 58, Q. 17).

Whittelsey made the *templates* and *mills* for the inside of the jaw and handle from Exhibit C.

On cross-examination he says he helped to make Exhibit C by *filing off the cheeks of the jaws*, and that the parts were fitted to the "Jenks nipper model side plates" (Rec., 65, x-Q. 89).

This will explain why defendants Hall and Oliver continually mention Johnson's improvements as alterations of the Jenks model.

He says that Johnson made the handles first, and afterwards the jaws, and after they had been fitted to the Jenks model (which was defendant's standard for No. 2 sizes) the parts were detached, and he does not remember ever seeing them "assembled" again while he was in the employ of the company (Rec., 71, x-Q. 137).

This explains why Oliver can testify that on his semi-weekly visits he never saw that *model* in the company's shop.

Of the attempt by defendants to impose a doubtful template upon this witness (see pages 32 to 37).

The defendants have offered no evidence showing that Complainant's Exhibit C was made subsequently to May, 1879.

Their only witnesses that could have any personal knowledge were *Judge*, *Hall*, *Oliver*, *Leopold* and *Harris*.

1. **Judge** was a very "willing witness" for his side, but he was not examined as to Exhibit C.
2. **Leopold** was not examined on this point.
3. **Harris** went to the shop twice a week with

Oliver, but was not examined on this point by defendants. On cross-examination he said: "Adams "might have shown him parts of the work. I took no "notice, not being a mechanic"; and although he saw Johnson at work, he never asked him what he was doing, because "not being a mechanic, I was not interested" (Rec., 216, x-Q. 79, and 217, x-Q. 87).

4. **Thomas G. Hall** was examined on this point at many portions of his confused testimony covering 36 pages of the Record.

Throughout his testimony he makes continual statements concerning and comparisons with the *Jenks Model*, and describes Johnson as making *alterations* on "*the Jenks model nipper.*"

Complainant's counsel objected to testimony concerning this *Jenks Model* and called for its production. It was not produced, although in defendant's possession in January, 1880, because Hall says: "I cannot "do so. I don't know where it is, and have no "means of finding out." Have you searched for it? "I have diligently," but does not state where he has searched, that he has asked a question of any one else, or that it is lost or destroyed (p. 47).

Complainant's counsel objected to testimony concerning alterations on the Jenks Model, but he continues.

After Johnson had altered the Jenks Model or made alterations on the Jenks Model (for he uses both expressions frequently), Hall says, "*duplicate parts were made of the jaw and handle, one of each,*" and taken by him to Hartford, Conn., to have new forgings, etc., made by James Kennelly.

At the time Hall made these statements he knew that he had furnished James Kennelly with *a model.* After defendants' testimony had been closed, they put in (under stipulation) a deposition of James Kennelly made May 27, 1882, in which Kennelly swears that Hall

furnished him with a *model*, and that it was in the shop of the Colts Pat. Fire Arms Co., where he was employed on May 26, 1882 (Rec., 243, Q. 14).

Hall did not mention this fact or produce the model and was guilty of something very like a suppression of evidence.

Hall's Qualification as Expert.

He says he is a piano forte maker, yet did not understand how to cure a defect in his nippers which made them unsaleable, though making nippers was his business—and he caused to be made 400 in Harlem and 6 or 12 dozen in Harlem and in Hudson street (Rec. 153).

From this may be judged the value of his opinion given in answer to the leading question: "State whether it would be possible to make the **skeleton jaws** of Johnson's Exhibit C of the old forgings, &c.," he says: "*I think not*" (Rec., 148, Q. 157).

What such a mechanic *thinks* is not evidence—for he has not shown himself to be an expert. He has never proved that he knew anything about the treatment of metal, &c., or that he had any skill or experience in mechanical construction, even of his nippers.

The Milling Vise Jaws.

These are produced by him as those in which his No. 2 nippers were milled "*down to October, 1879*," tries the "skeleton jaws" of Exhibit C on them, and asked for his opinion and reasons, says that "In their present "shape they could not be milled in vise jaws. They "have been filed down since the milling on the sides," and expresses a belief. Then called on again for his reason, says: "*The reason for my opinion is that the jaw "has been milled beyond a doubt, and that it could only "be held in the vise jaws for milling while in the shape "of a rough forging*" (Rec., 149, Qs. 163 to 170).

Defendants' witness, James Kennelly, who was

proved to be an expert in using mills, &c., says of the *same jaw*, that it is impossible for any man to decide whether those marks are merely scratches made by a milling tool coming in contact with the jaw, or whether the jaw was milled into its present shape.

Also, that he is not capable of judging whether the file marks were made before milling, etc.

Also, that a competent workman would set his milling tools to his model, etc., and that if he ran his milling tools over his model he would be discharged for carelessness or ignorance (Record, pp. 244–5).

Hall testifies that Johnson was intemperate during all the time he was in the employ of his company, and that he discharged him for intemperance and neglect (Rec., 141, Qs. 124–5).

Hall did not try his famous templates on these jaws—and certainly showed that he either could not have known much or knew too much to run the risk.

Hall, denied that he ever saw Johnson's *Exhibit C* before it was put in the interference. (It was never an exhibit before.)

"286 x-Q. Did you never see any of its parts before "then ?

"A. *No ; not to my knowledge.*"

Months after this he was examined on surrebuttal, and contradicts some of Adams' answers to direct questions 56, 57, 62, 63 as to his frequently seeing the *model*, etc. ; but as to 64, where Adams states that the mills were made from the *model Complainant's Exhibit C, Johnson's Model*, and extra parts were made for dies from which the forgings were made according to this *model*, says : "The answer is false. I would like to qualify "that ; *extra forgings* were made, but they were not "made from this *model*" (Rec., 249).

There is no sense in this, for no one pretends they

were. Forgings are not made from templates, like Johnson's "*working movement.*"

Hall then says he never saw THAT MODEL C in the shops of the Interchangeable Tool Company.

Hall (Rec., 141, Q. 123) referring to the perfection of the nippers, says: "All I ever knew Johnson to do in the matter *was to reduce the working of the gearing to perfect shape;*" that Johnson put the gearing in the handle (Rec., 169, x-Q.374) and when he is asked if he did not know Johnson made the *improvements* on the nipper before August, 1880, says: "I mean that it was the first knowledge that I had that Mr. Johnson claimed *them* as his invention."

Hall continuously varies his dates.

4. *James F. Oliver* is the only other witness on this point, and he shows that the company had no model with gearing until after Adams was employed; that he saw Johnson working at alterations of the Jenks model.

Q. 30. "When was the *Jenks model nipper completed as altered by Johnson?*

A. I cannot fix the date precisely, I think it was about the middle of May, 1879 (Rec., 192, Q. 30). That Johnson made the new handle and jaw models which Hall says he took to Hartford, but at x-Q. 141, Rec., 204, he says he never saw him make anything from beginning to end, but saw him with *parts of the model* in *his vise* and in his hands working upon them with a file, and (at x-Q. 163, Rec., 205): "What alter-
"ations did you see Mr. Johnson make in the Jenks
"model?

"A. I saw him make no alterations completely,
"but saw him at work making alterations," showing that he could not have seen or known what Johnson was doing.

This witness was many months after examined in surrebuttal to contradict what Adams had said about him in answer to Qs. 56, 57, and said he first saw

" *Complainant's Exhibit Johnson's Exhibit C," during the time of the interference case at Mr. Broadnax's* " *office in New York on my examination.*"

" Q. State whether you ever saw that *model or parts* " of it at the shop of the Interchangeable Tool Com- " pany in Hudson street, New York?

" A. I never saw the *model there* and *can identify* " *none of the parts.*"

At questions 56, 57 (Rec., 26, 20) Adams had stated that Oliver, Hall and others were frequently in the shop in Hudson street where nippers or tools were being made after Johnson's model, and that he had seen Complainant's Exhibit C in the hands of Hall and Oliver, I should say a good many times.

To the question whether those statements are true or false—Oliver:

" A. As to my having seen this *model there*, they are " not true. I have no recollection of having seen " either of the parts. *It is possible I may have seen* " *them without recollecting them.*"

The effort of these two witnesses is to make the Court believe that a workman took the standard model of the company, and, without any " working movement " to guide him, went to work to file out his improvements upon it. They support this preposterous position by the famous Irish evidence of not seeing Johnson make this working movement. If they cannot find the Jenks Model, it is pretty certain that they could have found the duplicate parts made by Johnson, or the model furnished by Hall to the Colts' Patent Fire Arms Co., and which Kennelly swore was in their shop May 26, 1882. Confession or profession of ignorance is not evidence.

The attacks made in so many shapes upon the one mill marked jaw, show the desperate condition of the defense, but do not show that it, as well as the other three and unattacked parts of Complainant's Exhibit C, were not made in May, 1879.

The defendants have not produced the best evidence in their power, and, therefore, they should not be allowed to give second-best in its place—nor is such admissible evidence.

III.

The plea of implied license set up by defendants is a confession without an avoidance.

Section 37 of the Act of July 8, 1870, which is Section 4899 of the Revised Statutes, granting to every person who purchases of the inventor or "discoverer, "or with his knowledge and assent constructs any "newly invented or discovered machine, or other pat- "entable article, prior to the application by the "inventor or discoverer for a patent, or who sells or "uses one so constructed, shall have the right to use, "and vend to others to be used, *the specific thing* so "made, or purchased, without liability therefor."

Hapgood vs. Hewitt, 119 U. S. Rep., 226, is a case decided by this Court since the hearing at Circuit of this cause.

229. Hewitt, for a *salary of* $3,000 was employed to devote his time and services to *devising improvements* in, and getting up and perfecting the ploughs manufactured by the corporation, &c.

230. Several improvements were suggested by the president, and Black, &c., and Hewitt was directed to proceed with the work without delay.

Nevertheless the Circuit Court held: 1st. That Hewitt was not expressly required by his contract to exercise his inventive faculties for the benefit of his employer. 2d. That whatever right the employer had

was only a naked license not transferable, and was extinguished by the dissolution of the corporation. And this Court: "We are of opinion that the views taken "of the case by the Circuit Court are correct."

Johnson applied for his patent on June 2, 1880, and the defendants might claim exemption for the use and sale of the improved cutting pliers up to that date, under the words of the statute and the construction given it by this Court in Andrews vs. Hovey, 123 U. S., 272.

That will not be contested, although Johnson swears that he did not intend to give them his invention; knew he had two years allowed him, and the proper opportunity to sell had not arrived (Rec., 110, x-Q. 445, 447.)

This is not knowledge and consent, to anything more than the making and selling of the specific articles made and sold. This even, if it created a naked personal license, could not be assigned, and when the association of defendants was dissolved ended that. The present defendants have committed their infringing acts since that time.

IV.

The defense of abandonment is another confession.

This simply means abandonment to public use, and the defendants have proved that ever since they began to sell these nippers, they have stamped them as patented. That they knew that their patent did not cover the improvements cannot be doubted. That their stamp was deceitful is true, but it prevented the operation of abandonment. By pleading it they confess

again that Johnson did invent the improvements, for assuredly they do not mean to be understood as abandoning their claim to their patent.

The allegation of the sale of 25,000 or 30,000 of *Johnson's Cutting Pliers* is stated absolutely in their answer, and is sworn to by defendants severally, and that fact cannot be denied by them.

They have shown that they protected them by their stamp, and it would be curious law which would allow *them* to take advantage of their own wrong (Rec., 164, x-Q. 308).

V.

The charge of fraud, &c., against complainant is absurd.

The evidence shows that he had been induced to part with his property in exchange for stock of the company that was worthless by the erroneous statements of Hall. That he had discovered that they had no patent for the improvements, purchased Johnson's invention and application, and endeavored with the aid of Gustam to re-establish the company. Rogers, defendant's witness, says that Gustam left the company in good financirl condition. Hall succeeded Gustam, and reduced it to bankruptcy between January and August, 1880.

That of secrecy is equally visionary with Defendant's Exhibit File Wrapper and Contents on the record.

It comes with ill grace from those who on October 7, 1879, voted to apply for a *French* patent on these improvements, at a cost of $150, borrowed money, loaned on account of the new gearing, when they believed a

United States patent could be got at from $60 to $100, and with a still worse grace from the accomplices of F. A. Prescott (Hall's Exhibit No. 13); Harris' Testy. (Rec., 211, Qs. 22 to 27, and p. 215).

VI.

The decision of the Court below shold be reversed, and the decree prayed for by complainant granted.

Respectfully submitted,
HORACE BARNARD,
Counsel for Appellant.

C. G. Burgoyne's Printing Business, 146-150 Centre St., N. Y.

A brief statement of facts in historical order will throw light on the points hereinafter presented.

1878, *August.* Thomas G. Hall made a model, and applied for the Letters Patent No. 209,677, granted Nov. 5, 1878.

1878. Associated himself with the other defendants and other persons, to manufacture, and did manufacture from two to 12 dozen of these nippers (Rec., 115, 116, and 128) in part of a small shanty in Harlem (Rec., 200). They were mechanical and commercial failures (Rec., 128 *et passim*).

1878, *October 1st.* Moses C. Johnson applying for place as manager was shown the Hall nipper by Mr. A. Gustam and at once perceived its defects (Rec., 75).

1878, *October.* Johnson went into the employ of J. H. Jenks & Co., tool and model makers. James M. Adams was also employed, and he talked with him about these defects (*Ibid.*).

1878, *October 15* or thereabouts. Talked with his room mate O. D. Woodbury about these defects, and drew a sketch on a "Revere House" card showing how he would remedy it by the prong and notch gearing (Rec., 77, Complts. Exh. B).

1878, *November or December.* Johnson was employed by J. H. Jenks & Co. to make a model nipper under the direction of Thos. G. Hall, President of the Interchangeable Tool Co., which sohould be "perfect "in its proportions and to serve as a standard for our "work in the future" (Hall, Tes'ty. x-Q., 323, Rec. 165).

1879, *January 1st.* Moses C. Johnson completed the Jenks' model. It is shown in the cut on the circular (Complts. Exh. No. 6) issued by the Interchangeable Tool Co. in 1879.

1879. In this winter he conceived the idea of making the projecting lips on the inside of the jaws to keep the spring in its place without fastening it with the brass block and screws, and also to prevent injury to the spring by keeping out clippings.

1879, *April 14.* James M. Adams was foreman of the Interchangeable Tool Co.

1879, *April 20.* Johnson was employed by defendant Hall at the suggestion of James M. Adams (Rec., 77 and 137).

1879, *April 23d.* Elbert A. Whittelsey was employed as tool maker.

1879, *April 23d.* The Interchangeable Tool Company began to make tools for nippers in accordance with the Jenks' model, but stopped.

1879. *Jas. M. Adams* had charge of the mechanical work, and some days after he was employed, J. F. Oliver, defendant, director, &c., told him the company "wanted him *to make a model and manufacture the nip-*" *per with some kind of a gear connection between the* "*handles.*"

1879, *April.* That some days after Adams showed him a pair of nippers with pins inserted in the handles (Rec., 189, 190).

1879, *April 23d.* This was the first "practical thing" and consisted of inserting three pins in one handle and two pins in the other (Rec., 129) about April 23, 1879 (Rec., 133, Defts. Exh. nipper handles 3 and 3x).

1879, *April.* Johnson explained his improvements to Adams and Whittelsey in the shop and also to the latter who was his room mate in their room.

1879, *May.* Adams gave Johnson two handles of an

"Alarm Register" and two jaws, and Johnson began to work out his improvements.

1879, *May.* Adams, after Johnson had begun, made the model put in as Complainant's Exhibit D (Rec., 17, 18).

1879, MAY *10th to 20th* Moses C. Johnson completed his "WORKING MOVEMENT," Complainant's Exhibit C, showing both his improvements (Rec., 78, Ints. 30–45, etc.) which were soon after adopted by the company.

1879. At this very date defendants allege the occurrence of the "*alteration*" of the Jenks Model, or Jenks Model Nipper (Rec., 133-134), but limit the alteration to the gearing of the handles and the reduction of the working of the gearing to a perfect shape by Moses C. Jonnson.

1879, *May.* "*Duplicate parts*" of and a little larger in every respect than a *full model* were made by *Moses C. Johnson,* by which to sink dies for the production of drop forgings, and taken to Hartford, Conn., to James Kennelly, die sinker, etc.

1879. Templates and mills were then (Rec., 135) made from *something,* in outline exactly like Complainant's Exhibit C, which should cut out its outline on the new forgings (Rec., 134, *et passim*).

1879, *June.* The new forgings were received and the mills were set to work on them.

1879, *July 1.* The first complete nipper was made with these tools, and it showed *both of* the *improvements* contained in Complainant's Exhibit C (Rec., 136).

Between *July 1, 1879,* and *December 1, 1879,* six or more dozen a day were made, like Complainant's Exhibit C. The mills were changed in *December, 1879,* but 25,000 or 30,000 of these nippers, with Johnson's improvements, were made before May 1, 1880.

1879, *August.* Pins were put by Adams in a large nipper for Frasse & Co. to show at the exhibition (Hall's Testy., Rec., 178, 179).

Johnson made a working drawing for this large nipper, so that it could be manufactured properly (see also Defendants' Exhibit No. 1, Johnson's drawing).

1879, *October 7.* Defendants voted to apply for the French patent without Johnson's knowledge.

1879, *December 15.* The milling fixtures were altered so as to cut the lips $\frac{1}{32}$ to $\frac{1}{64}$ shorter.

1880, *February 1.* James M. Adams discharged for incompetency (Rec., 169).

1880, *February 12.* Thomas G. Hall, having by "*erroneous*" statements obtained a boiler, engine, etc., from Henry G. Thompson, the Interchangeable Tool Co. moved to Milford, Conn. (Rec. 153, x-Q. 242 ; Rec., 160, 161 ; Hall's Testy., x-Qs. 273, 275, 255, 449, etc.).

1880, *May 1.* Moses C. Johnson was discharged for drunkenness and neglect (Rec.,83) and soon after claimed his invention (David L. Harris's Testy., Rec., 212, Q 34).

1880, *June 2.* Johnson applied for a patent therefor and assigned to Henry G. Thompson for value.

1880, *July.* Henry G. Thompson stated to Thos. G. Hall that his representations were "*erroneous*" and demanded the return of his boiler, engine, etc. (Rec., 75, x-Q. 449, etc.).

1880, *July, August, September* and *October*, 1880, are given by Thomas G. Hall as the dates on which he *first* heard of Jonnson's *claim to his invention* (Hall's Testy., Qs. 103, 104, 127 as to October; x-Q. 449 to 459 as to August).

J. F. Oliver (Rec., 193) had heard Johnson claim it.

D. L. Harris (Rec., 212, Q. 34) heard Johnson claim it soon after his discharge on May 1, 1880.

Hall admits that he knew Johnson made the improvement (Rec., 161 ; Hall's Testy., x-Q. 282.)

1880. *Isaac T. Rogers* sued the Interchangeable Tool Co. for a money debt (Rec., 222, Qs. 43, 44).

1880, *July. Henry G. Thompson replevined* his boiler, engine, etc. (Rec., 64, x-Q. 309, pp. 135–6 ; R. P., Q. 552).

1880, *August.* The Interchangeable Tool Co. assigned to one Healey, in whose place Henry S. Rogers was substituted, who made and sold infringing nippers (Rec., 218).

1880, *Summer.* Henry G. Thompson made various attempts to recuscitate the company.

1880, *October 5.* Letters Patent 232,975 were issued to Henry G. Thompson as assignee of Johnson.

1881, March 14. Thomas G. Hall and others employed F. A. Prescott as his attorney to prepare the way at the Patent Office (see Prescott letter, Defendants' Exhibit No. 13, also Hall's Testimony, Rec., p. 181) by bribing a friend of some one "inside."

1881, *April 20.* A settlement of H. G. Thompson's suits were effected by paying his costs and in the U. S. District Court replevining his engine, boiler, etc., and granting *personal immunity to Henry S. Rogers* from suits for infringement; agreement signed by Thomas G. Hall, Prescott, etc., H. S. Rogers and H. G. Thompson (Rec., 220–227, Defendants' Exhibit, Rogers' Settlement with Thompson).

1881, *April 27. F. A. Prescott* filed this application of Thomas G. Hall for a patent on Johnson's improvements, and an interference was declared and a severe struggle ensued.

1881, *May 7. F. A. Prescott* attempted to bribe Johnson to sell out Thompson (Rec., 112) with Thos. G. Hall's knowledge (see pp. 26, 27, Brief and Rec., 181).

1881. *Thomas G. Hall* first saw Defendants' Exhibit Drawing Kennedy Nippers when put in evidence in the interference (Rec., 176, x-Q. 460).

1883, March 13. The Commissioner of Patents sustained Johnson's claim to the invention and his patents of October 5, 1880 (see Complainant's Exhibit, Commissioner's Decision).

1883, *March 31st, etc.* The present suit was begun

in the Eastern District of New York, in which the defendants resided, and the answer was filed.

1883, *June 27th.* Alleging that the interference was *still pending.*

1883. Thomas G. Hall, by Broadnax, his counsel, appealed from the decision of the Commissioner of Patents to the Secretary of the Interior, and thereby caused all exhibits to be detained in Washington.

1883, *September 26.* Johnson's deposition and decision of Commissioner of Patents were stipulated in as part of complainant's *prima facie* case (Rec., 13, 14).

1884, *March 14.* Secretary of the Interior affirmed the decision of the Commissioner of Patents (Book of Exhibits, p. 77).

1884, *March 24th.* Box of exhibits used in the interference was received, opened by counsel for both parties, and Defendants' Exhibits No. 10 and No. 16 were not found. Their absence was not regarded as important by defendants, and they were not made a part of the Record herein.

1885, *July 24.* Complainant's bill was dismissed because the Court below found that complainant's Exhibit C was not made at the time alleged but after Johnson was discharged (Rec., p. 254).

Office Supreme Court U. S.
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JAMES H. McKENNEY,
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—IN THE—

United States Supreme Court.

Appeal from the Eastern District of New York.

IN EQUITY.

HENRY G. THOMPSON,
Appellant,
vs.
THOMAS G. HALL, *et al.*,
Appellees.

No. 186.

ARGUMENT FOR DEFENDANTS.

AMOS BROADNAX,
For Appellee.
HORACE BARNARD,
For Appellant.

U. S. Supreme Court.

APPEAL

FROM THE EASTERN DISTRICT OF NEW YORK.

HENRY G. THOMPSON,
Appellant.

vs.

THOMAS G. HALL, et al.,
Appellees.

Argument of Defendants' Counsel.

May it please the Court :

In August, 1878, a corporation was organized under the laws of New York, known as the Interchangeable Tool Company. This company was organized for the purpose of manufacturing cutting-nippers under a certain patent granted to defendant, Thomas G. Hall,

dated November 5th, 1878. Upon the organization of this company of Hall was made president, an office he has continued to fill from that time to this.

About the middle of April, 1879, the company employed one James M. Adams, a tool maker, to be foreman of its factory, and on the 20th of April of the same year the company employed one Moses C. Johnson as an expert workman and tool-maker. Immediately upon the employment of these men the company commenced to make active preparations for the manufacture of its nipper; and by July 1st, 1878, it had perfected the special tools and fixtures necessary for the production of the nipper, and had put it upon the market.

The company had its works first in Brooklyn, then in Harlem, then, from January 1, 1879, at No. 57 Hudson street, New York, until February, 1880, when it established its factory at Milford, Connecticut, in a building obtained by it of Henry G. Thompson, the complainant.

These are the essential facts that brought together the principal figures in this controversy—Thomas G. Hall, President of the Interchangeable Tool Company, Moses C. Johnson, a workman in the shop of that company, and Henry G. Thompson, landlord of the premises occupied by the company.

The invention making the subject matter of the patent in suit consists of certain improvements on the nipper of the aforesaid patent granted to Hall, Nov. 5th, 1878, and which improvements consist.

First, of an interlocking gearing between the handles of the nipper, and,

Second, of the lips, or projections, over the upper end of the v-shaped spring between the jaws of the nipper.

Hall claims to be the first and original inventor of

these improvements, and that Johnson surreptitiously obtained a patent for his (Hall's) invention.

These facts we expect to establish by the proofs contained in this record. We expect to be able to prove:

First. That Thomas G. Hall is the first and original inventor of all there is of *patentable invention* in the patent in suit.

Second. That the case sought to be made on behalf of complainant is false and fraudulent.

Third. That upon the facts disclosed by the record the defendants, acting for the Interchangeable Tool Company, have a legal right to make, vend and use the invention of the patent for that company.

POINT FIRST.

THAT THOMAS G. HALL IS THE FIRST AND ORIGINAL INVENTOR OF ALL THERE IS OF PATENTABLE INVENTION IN THE PATENT IN SUIT.

In presenting this point I will bring together, first, the testimony appertaining to the spring, and the lip or projection over the upper end thereof, by which it is held in place. And in considering the testimony upon the several points presented, your Honors will bear in mind that Johnson does not claim to have invented this feature, nor indeed any feature embraced in the nipper or patent in suit, previous to the *tenth of May*, 1879. To defeat Johnson's patent, therefore, upon the ground of priority of invention in Hall, it is necessary for defendants to show that Hall made the invention in controversy and reduced it to practice before the 10th of May, 1879.

Upon this point I invite the attention of the Court to the testimony of defendant's witness, Robert W.

Crane. This witness was a skilled tool maker in the employ of the Interchangeable Tool Company, and, under Hall, was in charge of the shop in Harlem in 1878. His testimony is as follows: Q. 6 to 9, P. 229.

6 Q. State if you recollect whether, previous to Mr. Hall showing you this sketch, of making some model nippers for Mr. Hall.

A. I had made three nippers—three different sizes. The first that were made from cast steel.

7 Q. State if you recollect what kind of a spring was put in those nippers, and how the spring was held in place.

A. The first nipper I made had a V-spring held by a pin through the plate—same as in Hall's patent of Nov. 5, 1878. The second had a V-spring between jaws without any pin. The spring would keep working towards the cutting edges of the jaws. The third one I made I filed the edge of the jaw, producing a small shoulder preventing the spring from traveling up toward the edge of the jaws.

8 Q. When did you made this nipper having the shoulder that prevented the spring working up toward the edges of the jaw?

A. I commenced it in the Summer '78, finished it in the Fall of '78, at Harlem.

Q. State, if you please, how the shoulders that held the spring from riding up in that nipper differed from the corresponding shoulders in this model, Defendants' Exhibit Hall's Pin-and-Hole Gearing?

A. It did not differ any. The same as nipper shown me, with the exception of being a little lower down than in this nipper. I think it might be a little lower. It might have been just the same.

That is the whole of the testimony of Crane upon this point; next follows the testimony of Hall, who produces a nipper which he made at the shop of the Interchangeable Tool Company in Hudson street in January, 1879, and in this nipper the spring is held in a seat by a projection over its upper end, precisely as in the patent in suit.

Hall's testimony about this model is found on P. 178, x-Q. 485 to 487; and on P. 187, Q. 558 to 560. It is as follows:

485 x-Q. Look at Defendants' Exhibit 20 and state when you first saw it, by what workman it was made, and where?

A. First saw it about January, 1879, at the company's shop in Hudson street; made wholly or partially by myself.

486 x-Q. At whose request, and for what purpose?

A. At my own volition and as a sample nipper; the pins forming the gearing between the handles, I think, Mr. Adams put in.

487 x-Q. State what portions you made and then what portions others made?

A. I made it wholly or with the assistance of a filer and a temperer, with the exception noted of the gearing; the nipper was otherwise complete when the pins were inserted.

559 R-d Q. And this Defendants' Exhibit 20, you say, you made yourself, all excepting the pins in the handles forming the gearing, as I understand you?

A. I do.

560 R-d Q. When?

A. In the early part of January, 1879; just as it appears now with the exception of the pins in the handles, which were put in by Mr. James M. Adams, in the Summer of 1879.

558 R-d Q. In the Jencks Model Nipper

was the spring put in the same as it appears in Defendants' Exhibit No. 20?

A. It was, with the exception that in the Jencks Model Nipper the notch holding the spring was higher up towards the cutting edge of the jaws; the lips in the Jencks Model Nipper seemed to be a little bit longer than in this nipper, but not much.

In this testimony reference is made to what is known in this case as the "Jencks Model Nipper." This nipper was made at the works of J. H. Jencks & Co., by Moses C. Johnson, who was then in the employ of Jencks & Co. The nipper was made as a model for the Interchangeable Tool Company by Johnson under the personal direction of Hall late in the year 1878 and in this Nipper was put this lip over the head of the spring, by direction of Hall.

(Johnson, Q. and Ans. 4 to 6, P. P. 75 and 78.

4 Q. State whether you were ever employed by J. H. Jencks & Co., and if so, state when and for how long?

A. I would state that I went into the employ of J. H. Jencks & Co. in the early part of October, 1878, and continued with them until about the first of February, 1879, there or thereabouts. I could not say exactly the dates.

6 Q. What was your principal occupation while you was with the firm of J. H. Jencks & Co.?

A. My principal occupation was building a printing press for Samuel Crump, of Mountclair, New Jersey, and after that building a model nipper for the Interchangeable Tool Company, *under the direction* of Mr. Thomas G. Hall, at that time president of the Interchangeable Tool Company.

Upon this testimony there can be no doubt but that this Jencks model was commenced by Johnson in the Fall of 1878, and finished in January, 1879; nor can there be any doubt but that the nipper was made under the direction of Hall, as testified to by both Hall and Johnson.

Hall says:

30 Q. State, if you please, how the spring in the Jencks model nipper and its arrangement between the jaws of the nipper, differed from the spring and its arrangement between the jaws in Complainant's Exhibit 3d, and Defendants' Exhibit Hall's No. 2 Nipper.

A. The difference consisted solely in that the projections over the head of the spring were shorter than in either of these exhibits.

31 Q. How much shorter was the projection?

A. I should say one thirty-second of an inch on each side jaw.

32 Q. In all other respects, then, as I understand you, the construction of the spring, its arrangement between the jaws of the nipper, and the projections over the head of the spring was the same as in the exhibits referred to in your answer to the 30th question?

A. It was the same.

The testimony of the witness Judge upon this point is as follows, P. 117, QQ. 13 to 21.

13 Q. State, if you recollect, of J. H. Jencks & Co. manufacturing a model nipper for the Interchangeable Tool Company.

A. I recollect such fact.

14 Q. State, if you recollect, when Jencks & Co. manufacurred the model nipper for the Interchangeable Tool Company.

A. As near as I recollect, in the early part of 1879, or the last month of 1878.

Q. State, if you know, how that model differed, if at all, from the nipper described and illustrated in Complainant's Exhibit No. 4.

A. As I recollect it, it had a projection on the jaw which held in the spring.

17 Q. Please to examine the paper now shown you, marked Complainant's Exhibit No. 2, and state if you please, what it is.

A. It is Patent No. 232,975, to M. C. Johnson, October 5, 1880, by the United States ("no model filed,"] for Cutting Pliers.

18 Q. I direct your attention now to the location of spring and the projections over the top of the spring, shown in the drawing making part of that patent. State, if you recollect, after examining that drawing, how the spring was put into the model nipper made by Jencks & Co., for the Interchangeable Tool Company.

A. It was put in, in that model, in the same way as shown in Fig. 5 of the drawing attached to this patent, Complainant's Exhibit 2.

19 Q. And did it have the projections over the upper end of the spring, as shown by that patent?

A. Yes.

20 Q. State, if you know, under whose directions that model nipper was made for the Interchangeable Company, by J. H. Jencks & Co.

A. It was made under the direction, and from sketches furnished by Thomas G. Hall, one of the defendants herein, and during the time the company's office was in my office.

21 Q. Please to give the name of the workman in the employ of J. H. Jencks & Co.,

who made that model nipper for the Interchangeable Tool Company.

A. Moses C. Johnson. He called at the office several times during the course of the work, bringing the model as it progressed, and receiving suggestions and instructions from Mr. Hall.

Complainant's witness Oliver testifies upon this point as follows, PP. 191–194, QQ. 21–23 and 52 and 53.

21 Q. When was the nipper made by Jencks & Co. completed and delivered to the Interchangeable Tool Company?

A. It was delivered by Jencks & Co. about January 1st, 1879.

22 Q. How was the spring arranged and held in that nipper.

A. It was a V-shaped spring held in position between the jaws by its own pressure against them.

23 Q. What was there to prevent the spring from working up out of its seat between the jaws?

A. A projection or shoulder at the throat of the jaw.

52 Q. You say that the spring in the Jencks Model Nipper was prevented from riding up by a shoulder or projection over its upper end at the throat of the jaw; how far did the shoulder in that nipper project over the ends of the spring?

A. I can't give you the measurement of it, but it was just enough to cover the thickness of the spring; it was a very slight projection.

53 Q. Was the projection as long as the metal forming the spring was thick?

A. It was.

The witness Judge was counsel of the company, as appears by x-Q. 38, p. 120:

> 38 x-Q. How long have you been the counsel for the Interchangeable Tool Co. Were you ever counsel?
>
> A. I was counsel for the company from its organization until September, 1881. I organized it.

Mr. Oliver was a director and treasurer of the company, as appears by Q. 6 and 7, p. 188.

> 6 Q. State when that company was organized?
>
> A. August, 1878.
>
> 7 Q. State whether you are an officer of that company; and if yea, what officer, and how long you have been such officer.
>
> A. I am a director and stockholder; have been such since the organization of the company. I was treasurer of the company from its organization—or very soon after—until about February, 1880; and from that time until about January, 1881, I was secretary.

Complainant's witness Whittlesey makes the following admission in the interference record:

Q. and A. 252 and 258.

Where the jaws of the Nipper C patterned after the jaws of the Jencks Nipper?

A. There was a *little* variation made on the inside of the jaw.

Q. Please to describe the variation?

A. It was principally in the spring seat and the projection over the same, and the throat under the cutting edge of the nipper was made a little deeper.

Now here are four witnesses, viz.: Hall, who produces a model, and Crane, Oliver and Judge, all of whom swear directly and positively to this feature (the spring-seat amd the lip over the upper end of the spring) being in the Hall nipper, perfected and in actual practice previous to the 1st of February, 1879, certainly three months before Johnson claims to have made his invention, and an admission by Complainant's witness Whittlesey that in the Jenks model there was the spring seat and the lip over the top of the spring, as sworn to by Complainant's witnesses, the Jencks model being made for Hall long before Model C was made.

I invite your Honor's attention now to the evidence in support of Hall's claim that he was, also, first to invent and reduce to practice the gearing between the handles of his nipper, substantially as it appears in the patent in suit. Testimony of Hall, Q. and Ans. 47 to 75, PP. 131 to 134.

> 47 Q. State, if you please, when you first conceived the idea of connecting the two nipper handles by means of gearing.
>
> A. I first *conceived* the idea during the latter part of 1876. I tested it on the first day of January, 1877, at my residence in College Avenue, near 142d street, New York City.
>
> 48 Q. What kind of a test did you make of the idea on the first of January, 1877. I mean in what kind of tangible form did you put the idea?
>
> A. I had a nipper in my possession made entirely of brass; it was a roughly made nipper. I noticed that in closing the handles one jaw would overlap the other. To obviate that I took one of the handles, drilled a hole in opposite the fulcum and inserted a piece of wire. I then took the other handle and drilled a hole as nearly opposite as I could with the means at my command; these han-

dles, when they were put together in the nipper, acted in unison, but, not being put in exactly in the proper position, one handle flaring outwardly more than the other.

49 Q. How did that arrangement of gearing, described in your last answer, differ, if at all, from the Defendants' Exhibit Hall's Pin-and-Hole Gearing?

A. The only difference is the pin and hole in this Exhibit (Hall's Pin-and-Hole Gearing) is made with accuracy—thus obviating the flaring of one of the handles mentioned in a previous answer.

50 Q. State to whom, if anyone, you showed that invention in 1877.

A. I showed it to Mr. Crane—I think his name is Robert W. Crane; my impression is that I also showed it to Mr. William Q. Judge about the same time.

51 Q. Do you mean that you showed that invention to the persons mentioned in your last answer, in the year 1877, or do you mean that you subsequently showed it to them—the invention made in 1877?

A. I mean to say that I showed the invention made in 1877, in the fall of 1878—the date mentioned in the previous answer, 1877, was a mistake; I was not acquainted with Mr. Crane in 1877. The Mr. Judge I refer to is William Q. Judge, who has testified in this case.

52 Q. State, as near as you recollect, when you made the acquaintance of Mr. William Q. Judge?

A. It was in the month of April or May, 1878.

53 Q. You say, in anwer to a previous question, that you have an impression that at the time you showed this pin-and-hole gearing invention to Mr. Crane that Mr. Wil-

liam Q. Judge was present; state if you recollection of subsequently showing the same invenlect to Mr. Judge?

A. I do.

54 Q Please to state when, and please to relate what occurred at the time you showed the invention to Mr. Judge, referred to in your last answer?

A. In March, 1879, I was in Mr. Judge's office, No. 71 Broadway. Mr. J. F. Oliver was present at the time. A conversation occurred between us in reference to an interview between a Mr. Curtis, Mr. Judge and myself; this matter related to a method of interlocking the handles of our nipper. At the time Mr. Judge made a sketch of this interlocking arrangement; it was understood between Mr. Oliver, Mr. Judge and myself that the plan should be tried at the factory in Hudson street.

55 Q. In your last answer you refer to a sketch made by Mr. Judge of a plan of interlocking the handles; please to state what that plan of interlocking the handles was?

A. It was the insertion of two pins in one handle and one pin in the other opposite the fulcra.

56 Q. Upon whose suggestion or request did Mr. Judge make that sketch?

A. At my request.

57 Q. Please to examine Defendant's Exhibit Hall's Pin Gearing and state, if you please, how the sketch made by Mr. Judge differed from the interlocking connection between the handles shown by that exhibit, if at all.

A. There was no difference.

58 Q. Please produce, if you can, the sketch referred to by you as having been made by Mr. Judge?

A. I cannot do so.

59 Q. Why?

A. Because I believe it is on file in the United States Patent Office.

60 Q. Do you mean as part of the record in the interference case?

A. I do.

61 Q. In answer to Q. 25 you say: "The "first practical thing done at the factory of the "Tool Company, situated at 57 Hudson Street, "N. Y., consisted of the insertion of three pins "in one handle and two pins in another han- "dle of a nipper previously made by myself, "forming a sort of gearing, and connecting "the two handles; these pins were inserted "opposite the fulcra." Please to state whether these pins were put in the handles by your direction, after the sketches made for you by Mr. Judge, as you have stated?

A. They were.

62 Q. Please to state, as near as you can recollect, when these pins were first put in the handles, as you have stated?

A. About the 22d or 23d day of April, 1879.

63 Q. Did you direct them to be put in?

A. I did.

64 Q. Who did you direct to do it?

A. James M. Adams, foreman at that time of the shop.

65 Q. Do you recognize Mr. Adams as being present here?

A. I do.

66 Q. State, if you know, when Mr. Adams went into the employ of the Interchangeable Tool Company?

A. Fourteenth day of April, 1879.

67 Q. Did he go into the employ of the company as foreman of its tool shop?

A. He did.

68 Q. Was Mr. Johnson in the employ of the company at the time the pins were put in the handles to form a gearing, as you have stated?

A. He was.

69 Q. Was this pin gearing put in the handles before the Jencks' Model Nipper was altered by brazing the pieces of metal on the inside of the handles, and the forming of the tooth-and-notch gearing in them as you have stated?

A. Yes.

70 Q. Then, as I understand you, the first practical step towards connecting the two handles of your nipper with a gearing, was the putting of the pins between the handles, so as to make them interlock, as you have stated?

A. It was.

71 Q. That, I understand you, was by way of experiment?

A. It was.

72 Q. And then followed the alteration of the Jencks Model?

A. Yes.

73 Q. By whose direction was the Jencks Model altered?

A. My direction.

75 Q. After the Jencks Model Nipper was altered, and the tooth-and-notch gearing put between the handles, as you have stated, what use was made of it?

A. It was used as the model and standard for making the gauges and tools for manufacturing the nippers.

Crane testifying upon this point, says:

4 Q. State what, if any, conversation you

had with Mr. Hall about putting a gearing between the handles of that nipper; and state when such conversation was had, if any?

A. I think it was in the Fall of 1878 that Mr. Hall came to my bench where I was working, took his pencil and drew on a piece of paper the handles and a connection of a spur traveling into a hole opposite in the opposite handle, which would cause the handle to travel uniformly.

5 Q. The drawing or sketch which you say Mr. Hall made and showed you at that time, how did it differ from the spur and hole shown between the handles of the Defendants' Exhibit Pin-and-Hole Gearing?

A. Not any. The location of the spur was central of the holding-screws.

10 Q. When Mr. Hall showed you his plan of a spur and hole connection between the handles, what, if any, explanation did he give you of his purpose in making such connection?

A. To cause the jaws and handles to travel together equally and in a uniform way.

11 Q. Were you employed by Mr. Hall as model-maker in the shop of the Interchangeable Tool Company at Harlem?

A. I was.

20 x-Q. Did you make any model of a nipper with a gearing between the handles?

A. I did not complete one. Mr. Hall drilled one for the spur, but whether he finished it or not I don't know.

21 x-Q. Would you, as model maker, as you have testified, be likely to know whether he finished it or not?

A. I would if I had seen it after he put it in his desk. I never saw it after he put it in his desk, but I left there shortly after.

22 x-Q. Would you as a mechanic consider

the pin-and-hole gearing shown you by Mr. Hall a practical device for moving the handles uniformly ?

A. It could be made to work just as well as the gearing, but it would be much more expensive. It could be done by having a ball on the end of the spur that enters a hole in the opposite handle, thereby forming the radius of the travel.

23 x-Q. Would a pin-and-hole gearing work practically without the ball on the end of the spur?

A. It would work with the pin entering an oblong hole. It would not work with the pin entering a hole of its exact size.

24 x-Q. How as to exactness of motion, if the hole was larger than the pin?

A. There would then be lost motion.

25 x-Q. Was there any ball on the end of the spur in the sketch you say Mr. Hall made and showed you?

A. There was not to my knowledge.

26 x-Q. What was the shape of the hole in that sketch?

A. Elongated.

27 x-Q Was there any spur, or ball on the spur, in the pair of nippers which you say Mr. Hall drilled but did not finish?

A. It was a straight spur entering an elongated hole.

28 x-Q. Are you as positive and exact in your statements as to these points as to your statements of your age?

A. Well, I might have made a mistake in my age at the time I was first called as a witness in the Interference case; but in this statement I am positive that what I have said is true.

Upon this same point the witness, Judge, testifies as follows, PP. 118 to 120, QQ. 23 to 36, and X-Q. 67, 75, PP. 123, 124.

23 Q. State, if you know, whether or not after the model nipper was completed by J. H. Jencks & Co., and delivered to the Interchange Tool Company, any alterations were made in the principle and construction of the nipper.

A. It was altered. It was found that the jaws moved towards each other without uniformity, thus causing the cutting-edges to be broken, and, at Mr. Hall's suggestion and direction, the handles of the nipper were altered so as to provide a gearing which should cause the jaws to move towards each other at a uniform rate. At first a pin was put in one handle opposite the fulcrum, with a corresponding hole in the opposite handle. Mr. Hall discarded this, and told me he had tried almost a year previously, putting pins in each handle, interlocking and moving the handles together; and that he would have made in the factory in Hudson street a similar device; and at his request I made a sketch of his idea, which sketch I showed to J. M. Adams, the foreman of the shop.

A large-sized nipper was taken then, and pins were put in the handles, placed opposite the fulcrum—two pins in one handle and three in the other. Immediately afterwards that was altered by leaving but one pin in one handle and two in the other—the single pin moving between the two others. This form was adopted, with the exception that instead of pins, projections, or tooth and recess—

Mr. Barnard objects to Mr. Broadnax's suggestion of "tooth and recess." Wit-

has changed his expression at Mr. Broadnax's suggestion.

The witness protests that he did not change his expression at the suggestion of any counsel.

The form was exactly the same as shown in Fig. 2 of Complainant's Exhibit No. 2, and the time of the adoption was between January and April, 1879.

24 Q. In your last answer you have referred to a gearing between the two handles of the nipper made of pins; please examine the handles now shown you, and state, if you please, how the pin gearing referred to in your answer, between the handles differed, if at all, from the pins in the handles now shown you.

A. There was no difference except in size, because the one to which I have testified was the largest nipper they made—about three sizes larger than these.

Handles referred to offered in evidence and marked Defendants' Exhibit Hall's Pin Gearing. J. E. B., Sp. Ex'r., Feby. 1884.

25 Q. Please to produce, if you can, the large sized handles referred to by you in your last answer.

A. I cannot produce them, as they are on file in Washington in the interference matter under the Johnson Patent.

26 Q. State, if you recollect, when it was that Mr. Hall had the pin-gearing put in the large handles, referred to in your last answer.

A. In the Spring of 1879; the exact date I don't remember.

27 Q. Was this pin-gearing the first prac-

tical step taken by the Interchangeable Tool Company, towards putting a gearing between the handles, substantially like that shown in the Johnson patent?

A. The pin and hole was the first step to which I referred; this I would call the second.

28 Q. When you say the pin and hole, do you refer to a gearing or connection between the handles like the exhibit now shown you?

A. Yes, sir; I do.

Exhibit offered in evidence and marked Defendant's Exhibit Hall's Pin and Hole Gearing. J. E. B., Sp. Exr. 23 Feby., 1884.

29 Q. State, if you please, when Mr. Hall. first showed you a plan of gearing consisting, of a pin in one handle and a hole in, the other, like this Exhibit Hall's Pin and Hole Gearing.

A. In the early part of 1879, at my office; I made a sketch then for him and he made one also on the same paper, showing the pin and hole gearing and also the tooth or ratchet gearing—or tooth and recess gearing; I want to cover that pin gearing. That sketch I produced on the Johnson interference case; it was filed as an exhibit and I have not seen it since.

30 Q. How early in the year 1879 did Mr. Hall show you the pin-and-hole gearing?

A. As early as March, 1879; he showed me both at that interview.

31 Q. When you say "both," do you mean the pin-and-hole gearing like Defendant's Exhibit Pin-and-Hole Gearing, and also like Defendants' Exhibit Hall's Pin Gearing?

A. I do.

32 Q. What was done with these sketches at the time they were made? Who were they given to and what use was made of them?

A. The sketches to which I refer were retained by me; several duplicates of them were made by me—were taken to the factory on Hudson street, by Mr. Hall and me, and were there shown to the foreman, J. M. Adams; and at his request other sketches were made by me roughly to show Mr. Hall's idea, and those latter copies and sketches were kept in the factory.

33 Q. State, if you know, whether Mr. Adams was directed by Mr. Hall to put the pin gearing in the handles of the nippers, for the purpose of ascertaining how the nipper would operate with a gearing between the handles.

A. He was directed to do this by Mr. Hall in my presence, and Adams showed me the pins in process of being put in, and the handles—discussed the idea with me, and in a couple of days showed me, and I held in my hand, the large nippers with the pins in the handles, to which I have testified, and said he guessed it would work all right. I remember this distinctly, and that owing to an irregularity in the pins, one handle flared out much more than the other and when produced in the interference case, I identified it positively, and it had the same peculiarity. Mr. James M. Adams afterwards made a claim to this invenat about the same time Moses C. Johnson procured his patent.

34 Q. State, if you please, when Mr. Hall gave directions to Mr. Adams to put the pin gearing in the handles, as you have testified in your last answer?

A. As near as I can recollect, it was as early

as February or March, 1879; that's the best I can do.

35 Q. State, if you please, whether or not at the time these directions were given by Mr Hall to Mr. Adams, Mr. Moses C. Johnson was in the employ of the Interchangeable Tool Company?

A. He was, as a tool maker, under Adams' superintendence.

36 Q. How long after the pin-gearing was put in the handles, as you have testified, was it before the plan of gearing was adopted shown in Mr. Johnson's patent (Complainant's Exhibit No. 2.)?

A. It was adopted almost immediately afterwards, and a model casting of the same was made for the company in Hartford, which casting I examined in the company's factory in Hudson street, when it was sent for approval by the Colt's Arms Company.

Upon this same point the witness Oliver testifies as follows, pp. 187:

10 Q. What were the first steps taken by the company towards making the gear-connections between the two handles of the nipper, and when were such steps taken? State fully what circumstances led to the introduction of the gearing between the handles.

A. About the first of April, 1879, I had a conversation at the office of William Q. Judge, with Mr. Hall and Mr. Judge relative to the perfecting of the nipper. The Kennedy Nipper was referred to in that conversation, and Mr. Judge and I asked Mr. Hall why we could not use a gear connection between the handles similar to that shown in the Kendey Nipper. Mr. Hall said that he had tried it and

thought he could improve upon it. He made a sketch, a pin-and-hole connection between the handles, and Mr. Judge also made a sketch showing a gear connection between the handles, and we thereupon, all three of us, decided that we must adopt some plan similar to that shown in the drawings there made. Shortly after, or about the 10th of April, 1879, Mr. James M. Adams was employed by the company to take charge of its shop and superintend the perfecting of the nipper and the making of tools with which to manufacture it. After he had been in the company's employ two or three days, I told him at the shop in Hudson street that we wanted him to make a model and to manufacture the nipper with some kind of gear connection between the handles, and that Mr. Hall was the president of the company, and he (Adams) would receive orders from Mr. Hall. About a week later Mr. Johnson (Moses C.) was employed by the company at Mr. Adams' request to assist him in making models, mechanical drawings and tools. A few days after Mr. Johnson's engagement, Mr. Adams showed me a pair of nippers having pins inserted between the handles to form a gear connection, which pins, he told me, he had put in himself. A model nipper which had been made for the company by Messrs. Jencks & Co. was then altered so as to have a gear connection between the handles consisting of one tooth on one side and two on the other. The work of altering this model was done by Mr. Johnson, whom I saw at work upon it a number of times. When completed this model was used as a pattern from which to make all of the special tools for the manufacture of the No. 2 Nipper,

11 Q. At the time you had this conversa-

tion with Mr. Judge and Mr. Hall, was the office of Mr. Judge also the office of the Interchangeable Tool Company?

A. Yes.

12 Q. What was the Kennedy Nipper referred to in your answer to Q. 10?

A. It was a cutting nipper of which I had seen a wood-cut showing a gear connection between the handles and a system of compound levers. It had been patented by one Kennedy, at what time I don't know.

13 Q. Please to examine the drawing now shown you, marked Defendants' Exhibit No 2, Drawing Kennedy's Nipper, and state if you recognize it as the Kennedy Nipper referred to by you in your answer to Q. 10.

A. I do.

14 Q. In answer to Q. 10 you say that Mr. Hall and Mr. Judge made a sketch showing a gear connection between the handles of the nipper. Please to examine the sketch now shown you, marked Defendants' Exhibit No. 9 Lead Pencil Sketch, and state if you recognize it as the sketch or sketches referred to by you.

A. These are the sketches I have referred to.

15 Q. Which of the sketches did Mr. Hall make himself?

A. Mr. Hall made the one which is here encircled by a red mark in the lower left hand corner.

16 Q. Were both of these sketches made in your presence, and did you see them made?

A. They were both made in my presence, and I saw them made.

17 Q. Please to examine Defendant's Exhibit Nipple Handles and state if you recognize them as the handles in which Mr. Adams

put the pins, as you have testified in your answer to Q. 10.

A. The handles shown me by Mr. Adams were like these. I cannot swear that these are the same handles.

18 Q. What was the object of putting the pins between the handles of that old nipper?

A. Mr. Adams made it to illustrate the principle upon which the nippers were to be made, and to show to the officers of the company how it would work.

19 Q. Do you mean how the nipper would work with a gearing between the handles?

A. Yes.

20 Q. And was that experimental gearing put in in obedience to the determination reached by Mr. Hall, Mr. Judge and yourself at the time you had your conversation, testified to in answer to Q. 10?

A. Yes. It was the result of instructions given Mr. Adams by myself and other officers of the company to make a gear connection between the handles.

24 Q. How frequently did you visit the works of the company during the time that these changes were being made in the nipper?

A. Two or three times a week, and remained from one to two hours each time.

25 Q. Did you see Mr. Johnson at work altering the Jencks Model for the purpose of making the gear connection between the handles?

A. Yes.

26 Q. In what way did he make the connection?

A. He dovetailed pieces of metal into the inside of the handles in order to have the necessary stock from which to make the projecting-teeth.

27 Q. State, if you know, where that nipper is?

A. I don't know.

28 Q. State, if you know, who made the original Jencks model?

A. Johnson (Moses C.) told me that he made it.

50 Q. Was it before or after Mr. Johnson went in the employ of the company that Mr. Hall and the company decided to put the gearing between the handles of the nipper, and directed Mr. Adams to do it or have it done?

A. It was done before the employment of Mr. Johnson.

51 Q. How long before?

A. A week—more or less.

The witness Harris, testifying to the same point, says, P. 210:

9 Q. State as near as you can recollect when you first saw a Hall nipper having a pin gearing between the handles?

A. I saw one almost immediately after the company moved into the shop in Hudson street.

10 Q. who showed it to you?

A. Mr. Hall.

11 Q. Where?

A. At the shop in Hudson street.

12 Q. Was that before or after Mr. Johnson went in the employ of the company?

A. I think it was before.

13 Q. How was the gearing made? I mean what did it consist of?

A. Of small pieces of wire.

14 Q. Whereabouts were those pieces of wire placed in the handles so as to form a gearing?

A. Were placed on the insides of handles.

15 Q. In what relation was this gearing with reference to the fulcra of the handle?

A. I will have to get you to show one—to explain what you mean.

16 Q. Examine the nipper now shown you, being Defendants' Exhibit 20, in this case, and state how the pin-gearing between the handles of the nipper shown you by Mr. Hall differed, if at all, from the pin-gearing between the handles of this nipper?

A. They were pieces of wire placed in the sides, which looked to me just like that.

17 Q. Do you recollect how many pins there were in each handle of the nipper he showed you?

A. There was at least two on one side. I don't know how many on the other.

18 Q. Do you know how the pins were put in?

A. I don't know how they were put in.

19 Q. Are you mechanic?

A. I am not.

20 Q. You merely recollect, as I understand you, of Mr. Hall's showing you a nipper at that time with a pin gearing between the handles?

A. Yes, sir; I recollect it distinctly.

21 Q. You did not see the pins put in, or know who put them in?

A. He said that before putting in the gearing the jaws did not work evenly, and by this arrangement he thought he could obviate that, and make them work properly.

38 Q. After the company started work in the Hudson street shop, how frequently did you visit the works, and with whom?

A. Fully twice a week with Mr. Oliver—sometimes oftener.

39 Q. How long did your visits continue?

A. As long as the shop was continued in Hudson street.

40 Q. About how much time did you spend at the shop at each visit?

A. An hour or more.

Cross-examination:

56 x-Q. Can you state positively that Mr. Hall showed you a nipper with pins between the handles before Johnson's employment?

A. Yes, sir; I can state that positively.

60 x-Q. Have you in any way by conversation with another person or otherwise, refreshed your recollection on this point since yesterday?

A. No, sir.

Upon the testimony of these five witnesses, and the accompanying drawings and models—it is submitted that Hall had the invention of the interlocking connection between the handles of his nipper reduced to practice before Johnson went in the employ of the Interchangeable Tool Company, which was, as Johnson swears, on April 20, 1879. (Johnson, Q. 19, p. 77).

The models referred to in certain of the depositions as being on file in the Patent Office as exhibits in the interference case, were subsequently produced and marked in evidence, under the same titles, in this case.

But up to the time that Johnson went in the employ of the company Hall had the invention first in the form of a pin and hole, or prong and notch, connection, consisting of a short pin set in one handle and operating in a hole made in the other; and afterwards in the form of a pin gearing consisting of short pins set opposite each other in the respective handles, the pins being so arranged as to mesh together, precisely as the ordinary mortice or pin gearing. But while either of

these forms of gearing were well known in the arts and well adapted to reduce the invention to practice, they were applied by Hall, in this case, merely by way of experiment, for the purpose of illustrating to his associates what the practical operations of the nippers would be, with the handles geared together; the cogs to be milled in the handles in the event of the experiment proving satisfactory. The experiment did prove satisfactory, and the forging dies of the company were thereupon enlarged to provide stock enough opposite the handle fulcra in which the cogs could be milled. Of course there never was any intention on the part of Hall, or any officer of the company, to manufacture the nipper commercially with a pin gearing between the handles. The pin gearing was a mere preliminary to the cut gearing, as it first appeared in the Jencks model as altered by Johnson under the direction of Hall immediately after he went into the employ of the Interchangeable Tool Company—in that model was put the prong and notch claimed by Johnson.

Johnson denies by a mere quibble that he altered the Jencks model nipper, but admits that he put new and different handles in that model about the first of May, 1879. His testimony upon this point is as follows:

> 262 x-Q. After you had made this model (c) did you then alter the model that you had made at Jencks & Co.'s, so as to make the lock connection between the handles as shown by this model?
>
> A. I did not alter the model.
>
> 263 x-Q. Was the model not altered?
>
> A. I made two new handles for the model.
>
> 264 x-Q. What did you make the two new handles for?
>
> A. For the reason that Mr. Adams requested me to.
>
> 265 x-Q. Were the two new handles that you made the same as the old handles?

A. They were not after I got them completed.

266 x-Q. How did they differ from the old handles?

A. There were several teeth on each handle —two or more of said teeth were concentric with the screw or stud on which the handle moved, these teeth to act as gears. The movement of one handle would necessitate the movement of the other.

267 x-Q. And that made a cog connection between the two handles, as I understand it?

A. That made a cog connection; yes.

268 x-Q. These two new handles, as I understand you, were fitted in the model, which you made while in the employ of J. H. Jencks & Co. Is that correct?

A. They were fitted to that model.

269 x-Q. And was not that an alteration of that model?

A. I altered no pieces belonging with that model; these pieces were additional pieces.

270 x-Q. Then you don't consider the putting in of new handles, of different shape, an alteration of the model?

A. I don't consider it altering any of the parts of the model.

276 x-Q. After you had completed the model Exhibit C, how long was it before you put the new handles in the nipper that was made at J. H. Jencks & Co.?

A. That I couldn't say. It was somewhere about that time. It was something I did not think of at that time.

277 x-Q. Somewhere about what time?

A. I should say it was nearly the fore part of May, 1879.

278 x-Q. Was that done before or after the model Exhibit C was made?

A. They were all done about the same time. I could not state positively. I have no means of knowing.

279 x-Q. You made both models, it appears. Now don't you know which one you made first? You stated upon your direct examination that Exhibit C was the first working model you made of the movement of the invention. Now was it immediately after the making of the model Exhibit C that you put the new handles into the model made at Jencks & Co.?

A. The model C was the first model I made embodying the invention. The Jencks model had nothing whatever to do with this case, and the additions which were added to it were done as experiments; and as to the time of these alterations, I could not positively swear whether it was before or after, but it was about the same time.

280 x-Q. Now I ask you again whether the new handles having cog connection between them, were put in the model that was made at Jencks & Co.'s, after the model Exhibit C was made?

A. I have no means of knowing. I do not know.

292 x-Q. I asked you if the several parts of the nipper were made to conform in shape and size to the model that was made at the shop of J. H. Jencks & Co., after you put the new handles in at the works of the Interchangeable Tool Company.

A. I don't remember whether they were or not.

293 x-Q. After the new handles had been put in, the nipper of the model made at Jencks & Co.'s, did all the nippers made by the Interchangeable Tool Company have the

cog connection between the two handles and the spring fitted in between the jaws, as shown by the model Exhibit C?

A. I think all the nippers manufactured by the company did have; all that were manufactured, to my personal knowledge.

294 x-Q. Now, don't you know as a tool maker, that the nipper with the cog connection between the handles and the spring fitted in between the jaws, as in Exhibit C, couldn't not be made from the pieces or parts forged for the old nipper?

A. I don't think they could be. Of course, they could be, by blacksmithing and throwing the stock out it could possibly be done; but it is not at all likely that it was done.

It is submitted that this testimony is equivocal and uncandid. If Johnson had made the so-called model C before he altered the Jencks model, he would have been quick to remember it. Hall, Judge and Oliver, all swore unequivocally, in the testimony I have quoted, to the alteration of the Jencks model nipper, under the direction of Hall, and that Johnson made the alteration by dovetailing, or brazing a piece of metal on the inside of the handle, by which stock enough was obtained into which the cogs could be cut.

Johnson denies that he altered the model in that way, but says he altered the model by fitting new handles into it, in which he cut the cog gearing.

Now, the point is that the cog connection was put between the handles of the Jencks Model before Model C was made and it is not very material which way the model was altered to obtain this cog connection, whether by putting in new handles or altering the old ones; but as matter of fact, there was but one way in which it could be altered—and that is by brazing or dovetailing pieces on the inside of the

handles, as described by Hale and Oliver—for the reason that the handle forgings the company then had were the same old forgings of which the Jencks model had been made and which did not have stock enough on the inside into which the cogs could be cut. New handles, therefore, made of the same old forgings, would have made no alteration in the nipper. To make a cog connection between the handles, it was absolutely necessary either to have new handle forgings, or to braze or dovetail a piece of metal on the inside of the old ones.

But Johnson swears that he made the new handles for the Jencks model out of the old forgings, then in possession of the company, the same forgings out of which he made the handles for the original Jencks model. This is what he says:

> 443 x-Q. Referring again to the model made by you at the shop of J. H. Jencks & Co., in which you afterwards put a pair of new handles, did you make those new handles from forgings then in the posession of the company?
>
> A. I think I did.
>
> 443 x-Q. How did you get the necessary material on the inside of those handles opposite the fulcra to make the gearing connection?
>
> A. I think I obtained it by the use of a hammer, to place the material in the proper place to form the teeth or cogs.

In answer to 277 x-Q already quoted, Johnson says that he put the new handles in the Jencks model in the forepart of May, 1879, but does not remember whether it was before or after model C was made.

Now, if these alleged new handles were made in the forepart of May, 879, then they were certainly made of the old forgings, for at that time the new forgings had not even been ordered.

If, therefore, these new handles were made at all, they were certainly made of the old forgings, out of which they could not be made for want of material into which to cut the cogs, unless pieces of metal were brazed or dove-tailed on their insides, as stated by Oliver. True Johnson says he *thinks* he obtained the necessary material into which he cut the cogs by reforging the handle with the hammer, but that is manifestly impossible, upon mere inspection of the handle forging, as I shall presently show, and as Johnson very well knew, for he fairly admits, in answer to x-Q. 294 already quoted, that the handles were not reforged with the hammer. He says it might be possible to gain the necessary material for the cogs in the handle by reforging them with the hammer, but does not recollect of doing it, and says it is not at all probable that it was done.

Johnson knew perfectly well that that could not be done. He knew that these forgings were all made into a die, all of exactly the same size, form and proportion, with no more material in any one part than was necessary for that part, and that to reforge them with a hammer for the purpose of increasing the material in one place must result in decreasing it in another, and in destroying the strength, form and proportion of the handles, which in a model nipper by which the dies were to be sunk and the templates made, and by which all the parts of the manufactured article were to be fashioned and guaged, would be utterly inadmissable.

Now Johnson says he put these new handles in the Jencks model in the fore part of May, 1879, at about the same time he made model C; but he would not say which he did first—make model C, or put the new handles with the cog connection into the Jencks model. But Whittlesey, one of the defendant's witnesses, upon this point says in answer to questions 128 and 129.

128 x-Q. Do you recollect of Moses C. Johnson fitting a pair of handles in the Jencks Model Nipper, having a cog connec-

tion between the handles, consisting of two or more cogs on each handle?

A. I think there was a pair fitted in that nipper, or some nipper; I don't know which.

129 x-Q. Was that done on or about the first of May, 1879, before Model C was made?

A. I think it was.

Here, then, we have, upon the proofs adduced, the Hall nipper having in it every part and combination of parts claimed by the patent in suit, and that before Johnson claims to have conceived the invention, the date of which he gives as follows:

32 Q. State then, the nearest you can recollect, the month and day when you first conceived the invention of the combination in question.

A. In the month of May, 1879, I made a working movement of my invention.

32 Q. Describe the working movement you made in May, 1879, as near as you can and where it was made.

A. I would state it was an exact duplicate of Exhibit No. 1, so far as the mechanical movement is concerned, including projections on jaws for preventing the entrance of matter not required inside of the nipper. It was made in the American Express building, corner of Jay and Hudson streets, New York.

34 Q. Have you that movement still in your possession, and can you produce it?

A. I have. I do produce it.

Same model offered in evidence by counsel for Johnson, and marked Johnson's Exhibit C; H. E. T., N. P.

So, then, according to Johnson and Whittlesey, the so-called model C, was conceived on the 10th of May

and completed by the 20th of the same month, and by the same witnesses it appears that the cog-gearing was put between the handles of the Jencks model before model C was *conceived* or made. The Jencks model was the Hall nipper with the cogs between the handles.

Here then we have the Hall nipper as patented by Hall Nov. 5th, 1878, with the two additional elemenes added, viz: the gearing between the handles and the lip over the upper end of the spring. Now what did Johnson invent?

The claim of the patent is as follows: "The body, "composed of the sides, a, b. The independent fulcra, "2, 3, 4, 5, for the jaw levers and hand levers, the jaw "levers provided with cutting edges and with lips, e, "and the hand-levers having short arms, g' h', and a "prong and notch always in engagement as described, "combined with the V-shaped spring, held, as de- "scribed, by the lips of the jaw lever, all as and for the "purpose set forth."

It is difficult to tell just what is intended to be covered by this claim. In the specification the patentee says "that his invention is an improvement upon "that class of pliers represented in United States "Patent No. 209,677, dated Nov. 5th, 1878, granted to "Thomas G. Hall. In that invention either of the two "hand-levers may be turned on its pivot, without turn- "ing the other, and the tool-body, formed by the face or "covering plates, is permitted to vibrate, or turns more "or less with relation to the handles and the central "space between the cutting faces of the jaw levers, "when the pliers are taken in the hand to be used, drops "more or less out of line with the central line of the han- "dles, making, as it were, a loose joint midway between "ends of the pliers."

Here the patentee points out one of the objections that could properly be urged against the Hall nipper as patented Nov. 5th, 1878. The patentee then says that—

"One of the objects of my invention is to construct a "stiff pair of pliers, or pliers in which the hand and jaw "levers shall each be compelled to move positively in "an opposite direction to the movement of its fellow "or a pair of pliers in which the tool body shall not of "itself swing or vibrate upon the pins or studs hold- "ing the hand levers."

Now just such a pair of pliers as is described in the paragraph last quoted is found illustrated and described in U. S. Patent, No. 148,566, dated March 17th, 1874, granted to De Lancy Kennedy, and which is in evidence in this case. In so far then as any advantage to be obtained by gearing together the hand levers between the jaw levers is concerned, which the patentee states to be one of the objects of his invention, he is broadly anticipated by the Kennedy patent. Broadly there certainly was no novelty in uniting the two hand levers by an interlocking connection or cog-gear. This feature, as a feature in hand nippers, was old beyond any doubt.

The patentee in the specification of the patent then says:

"In the patent above referred to (the Hall patent) "the end of the wire, or other thing cut off by the "cutters, drop into and injures the spring that opens "the jaw levers. This I obviated by providing each "jaw lever with a lip to cover or bridge the space "between the jaws as the jaw levers are closed."

Now, if your Honors will turn to the patent of Hall you will see that when the jaws close they shut hard upon the pin *q*, closing absolutely the space above the spring. The statement therefore in Johnson's patent, that the cuttings separated by the Hall nipper, as it appears in the patent of November 5th, 1878, would drop into the spring, is erronous. The pin *q* in that nipper closed the space between the spring when the nipper is closed as effectually as do the lips in the patent in suit. In so far, then, as this *function* of the

lip is concerned, in the patent in suit, it is completely anticipated by the patent of Hall November 5th, 1878; the pin *q* in this patent serving in practice the double purpose of keeping the cutting edges of the nipper from slamming together and of closing the space above the spring, as is manifest upon mere inspection of the patent; for surely in that patent the pin cannot keep the cutting edges from slamming unless the jaws close upon it; and if the jaws close upon it, the space above the spring is also closed; and as the cuttings cannot be severed until the jaws close upon the pin, they can by no possibility drop into the opening between the limbs of the spring. The pin and the lips in the two patents also perform precisely the same functions in preventing the cutting edges from slamming, for it is stated in Johnson's specification that the lips are made long enough to come together "just as, or just before, the "cutting-edges come together." The lips, therefore, are a mere substitute for the pin in so far as these two functions are concerned.

The specification of the patent, after stating the objects sought to be accomplished, as above quoted, then proceeds as follows:

> My invention consists in the combination and arrangement of parts for effecting these ends. As hereinafter specified and claimed, figure one represents, in side elevation, a pair of cutting pliers, containing my improvements; and figure two a like view, with one of the body or side plates removed. The body of the plier is composed of two side plates, *a b*. These side plates are fixed together by the screws, 2, 3, 4, 5. Of these screws, those 2, 3, serve as the fulcra of the jaw levers, *c d*, having their usual cut-cutters or cutting surfaces c^1 d^1. Each of these jaw-levers has a lip, *l*, and the end of one meets the end of the other lip just as

or just before the two cutting edges c^1 d^1 separate the wire or other metal end to be cut off by them, thus closing the space between the said jaw-levers and side plates, in which is placed the spring *f*, and preventing the entrance into said space of hard pieces of wire or other articles that would clog the pliers. These lips also serve another essential purpose —viz., that of holding the ends of the spring from displacement and obviating the employment of a separate pin or stud to hold the said spring at one end, as heretofore common.

The screws 4, 5, serve as the fulcra for the hand-levers *g h*, having short arms g^1 h^1, to act upon the ends of the longer arms of the jaw-levers and turn them on their fulcra to close the jaws and bring the cutting edges together. The spring *f* opens the jaws the instant the clasping pressure on the hand-levers is relaxed,

In order to move the jaw-levers equally at all times and prevent the jaw-levers and body of the pliers turning on the handles, I have provided one hand-lever with a prong, *m*, having a rounded end that enters a rounded notch in the opposite lever. This one prong and its notch are always in engagement, and so connect the two levers that the body of the pliers cannot vibrate on the screws 4, 5, but, on the contrary, the two levers may turn each on its own pivot, both levers always turning the same distance, but in exactly opposite directions. This connection between the two hand-levers, as described, insures a stiff pair of pliers, that can be handled more readily and accurately than the old form of cutting-pliers referred to, and which are more positive as to the movement of the cutting jaws.

I am aware, in bolt-cutters, where the short

ends of the hand-levers are jointed with the long ends of the cutting jaw-levers, that a series of teeth or cogs have been interposed to cause the hand-levers to be geared together; but in such bolt-cutters one single tooth and notch would not operate to always keep the two hand-levers locked together as to their movement in unison, as is the case with my one prong, *m*, rounded at its end and inserted within a rounded notch.

The claim of the patent I have already quoted—

By the specification it would seem that the claim is intended to be limited to the combination stated, in which the gearing or interlocking connection between the handles is to be limited to *one prong* and notch in contradistinction to two or more; and the lip over the head of the spring is to be limited to lips that are long enough to reach over and join together above the spring when the nipper is closed, in contradistinction to short lips, or lips long enough to hold the spring in place, but not long enough to bridge over it. But in terms the claim of the patent is not so limited.

The claim considered by itself, and unlimited by the specification, covers two prongs and notches or cogs, as well as one, and it covers short lips over the top of the spring as well as long ones reaching together and bridging the spring.

Now, if the claim be construed to be for the combination, having lips over the head of the spring long enough to bridge it, then we do not infringe the patent, assuming it to be of any legal force, (which we deny,) as we do not now, nor have we ever made any nippers having lips long enough to bridge the spring.

But assuming that we have made the nipper with the elongated lips, how is there any invention in making these lips a thirty-second of an inch longer or shorter.

Hall had these lips over the head of the spring in his nipper, Exhibit 20, in January or February, 1879, and in that nipper the lips are long enough for all the purposes of the nipper.

Johnson says he conceived the idea of elongating these lips to prevent cuttings from dropping between the limbs of the spring—a function that was anticipated by the transverse pin in the Hall patent of Nov. 5th, 1878. This statement in Johnson's patent is a mere make-weight to get a patent; a false pretence, for as a matter of fact there never was any need of having the transverse pin of the Hall patent or the elongated lip of the Johnson patent to keep the cuttings from dropping between the limbs of the spring, for it does not appear by any proof in the case that there ever was any objection urged against the nipper upon the ground that the cuttings dropped between the limbs of the spring notwithstanding the fact that thousands of the nippers have been made and used, and in no case are the lips made long enough to come together and bridge the spring when the nipper is closed. The testimony of Hall upon this point is as follows:

> 93 Q. Referring now to Complainant's Patent Exhibit 2d, I read to you lines 33, 34, 35, 36, 37 and 38, which are as follows:
>
> > "In the patent above referred to, the "end of wire or other thing cut off by "the cutters drops into and injures the "spring that opens the jaw levers. This "I obviate by providing each jaw lever "with a lip to cover or bridge the space "between the jaws, as the jaw levers are "closed."

I also read to you from the same patent, lines 45 to 58, and part of 59 inclusive:

"The body of the pliers is composed "of two side-plates, *a b*. These side- "plates are fixed together by the screws "2, 3, 4, 5. Of these screws 2, 3 serve "as the fulcra of the jaw levers *c*, "*d*, having at their ends the usual cutters "or cutting surfaces c^1, d^1. Each of these "jaw levers has a lip *z*, and the end of "one meets the end of the other lip just "as, or just before the two cutting edges "c^1 d^1, separate the wire or other metal "end to be cut off by them, thus closing "the space between the said jaw levers "and side plates in which is placed the "spring *f*, and preventing the entrance "into said space of hard pieces of wire "or other articles that would clog the "pliers."

State, if you please, how many nippers you have made for yourself individually, and how many nippers the Interchangeable Tool Company has made, in which the ends of the two lips came together forming a bridge over the spring, as stated in the quotation from the specification I have just read.

A. I can answer from knowledge only from the first day of January, 1880, up to the present time, that I have not individually, nor as an officer of the Interchangeable Tool Company, made any nippers as described. Nor do I believe that any were made prior to that date.

94 x-Q. Please to examine Complainant's Exhibit 3d, and state, if you please, whether the two lips in that nipper come together as stated in the quotation I read from the patent.

A. They do not.

95 Q. Please to examine Defendants' Exhibit Hall No. 2 Nipper, and state, if you please, whether the ends of the lips in that nipper come together when the nipper is closed.

A. They do not.

96 Q. In the manufacture of these nippers is it in any way material that the lip over the head of the spring be made longer than one side of the spring is thick?

A. It is not,

97 Q. At the time that you had Jencks Model Nipper made and the projections put over the upper end of the spring, as you have testified, were the projections over the end of the spring in that nipper long enough to serve every practical purpose in the manufacture of the nippers?

A. Yes.

98 Q. State, if you please, who directed the projections to be put over the upper end of the spring in the Jencks Model.

A. I directed Moses C. Johnson to do so.

145 R-d Q. I place in your hands Complainant's Exhibit 5th. Please examine and state what difference there is, if any, in the construction of this from Complainant's Exhibit 3d?

A. There is a considerable difference in the thickness of the lip over the spring. The cutting edge is a little heavier on Exhibit 5th than Exhibit 3rd. The lip holding the spring in Exhibit 5th doesn't project as high as it does in Exhibit 3rd.

146 R-d Q. Are those differences essential in the construction of the nipper?

A. I think one nipper would operate as well as the other.

Now plainly there is no patanteble improvement in the elongation of these lips for the reason that such elongation is entirely useless.

The so-called improvement is not used by us, nor is it used by any one. If it were desirable to close the space between the limbs of the spring, it is readily done by milling a shallow seat for the springs, so that the two limbs will come together when the nipper is closed as shown in Defendants's Exhibit Vivarttas Model; but how is there any invention in cutting the spring seat shallow instead of deep, the object to be accomplished being old. Such a change would suggest itself to any mechanic of ordinary skill. Manifestly the length of the lips are long or short, according as the spring seat is cut deep or shallow, and manifestly there is no invention in cutting it deep instead of shallow, unless there is some new and useful object to be attained by the change, and not then if the change be such as to suggest itself to any skillful mechanic in the ordinary pursuit of his trade. So, too, as to the gearing between the handles of this nipper. It is nothing more than a section of two cog wheels, the fulcra of the handles being the centre of the wheels; and whether there is one tooth in each section or two or more is utterly immaterial in any practicable or patentable sense.

The pin gearing or connection, such as Hall had put between the handles of his nipper by way of experiment to illustrate the working of a cog connection, is an old and well known method of making gearing, as is also the method of milling the cogs in the solid metal. The one is an exact substitute for the other and both are older than either Hall or Johnson, as appears by defendant's expert (See Defendant's Exhibit Willis' Principles of Mechanism, and the testimony of Vivarttas).

Upon this point the witness Vivarttas testifies as follows:

A. My name is Aloha Vivarttas; am forty-

nine years of age; reside at the corner of Hil and Spring streets, West Hoboken, N. J.; am an architect and engineer.

2 Q. What, if any, experience have you had in designing and making cog gearing?

A. For thirty years I have been drawing and making machinery of various kinds; and within that time I have had occasion to make, and have made, gear of various sizes and descriptions—I mean that I have designed and drawn gear and gear teeth; have made the the same practically in the shop.

3 Q. I place in your hands a cutting nipper, being Defendants' Exhibit Hall's No. 2 Nipper; please to examine it, and especially the connection between the two handles, and state how that connection differs, if at all, in substance from a cog connection, such as is made by the meshing of two ordinary cog-wheels?

A. The two handles of this exhibit are connected by three teeth—one of them being in one handle, engages between the two on the other handle in the same manner and subject to all the same laws of motion, and in its best and its most practical form, governed by precisely the same principles as one tooth of an ordinary spur gear engaging between two teeth of another.

4 Q. Suppose that one of the teeth making the connection between the two handles of that exhibit be broken out, how would you repair it, so as to make it operate precisely as it does now?

A. There are two methods of making such repairs that are common in the shops; by one method we should cut a groove, of a dove-tail form, in the body of the metal where the tooth was broken off, and make a new tooth

of the same form as the original, and having a dove-tail projection on the back, fitted and driven into the dove-tail groove described. By the other method, which is commonly used, we should drill one or more holes in the place where the tooth was broken off, and driving screwing pins in such holes—should then form the outer end as nearly as possible to the form of the original tooth.

5 Q. How long have these methods of repairing cog-gearing in the shops been practised, to your knowledge?

A. In my experience, thirty odd years.

6 Q. I place in your hands now another nipper, marked Defendants' Exhibit No. 20. Please to examine the gear connection between the handles of this exhibit, and state, if you please, how it differs in principle, purpose and practice from the gearing in Defendants' Exhibit Hall's No. 2 Nipper.

A. In principle and purpose I find no difference. In practice there is a slight difference in the method of construction, the tools used, etc.

7 Q. I place in your hands now another nipper, marked Defendants' Exhibit Hall's Pin-and-Hole Gearing. Please to examine the gear connection between the handles, and state how it differs, if at all, in principle, purpose and practical operation from the gearing between the handles in Defendants' Exhibit Hall's No. 2 Nipper. (Nipper referred to here, is nipper made in 1884, for illustration.)

A. The only difference in the principle is in the fact that there is a side guide supplied by the sides of the hole in which the pin engaged, that prevents one handle from being taken off its fulcrum without the other. Both handles must be removed at once. In the

purpose there is apparently no difference. This is a crude method of obtaining the same result. In the practical operation this is equivalent to portions of two gear where two teeth of one gear have been cut off at the pitch-line, and the one tooth of the other gear is reinforced by the metal of the body of the handle up to the pitch-line.

8 Q. Referring to the different forms of gearing between the handles of all three of the exhibits shown you, state whether each of them illustrates different forms of gearing well known in mechanics.

A. They do.

9 Q. How long have you known such forms gearing in use?

A. Thirty odd years.

10 Q. I place in your hands a book entitled Principles of Mechanics, by Robert Willis, M. A.; F. R. S., published by Longmans, Green & Co., London, 1870. Please take it and state if you find the different forms of gearing in this book contained in these several nippers.

A. I find on page 45 a gear made by cogs inserted into holes, in general construction agreeing with Defendants' Exhibit No. 20. Also on the same page illustrations of gearing similar to Defendants' Exhibit Hall's No. 2 Nipper. On page 51 I find an illustration of two wheels, the teeth of one wheel being made by pins inserted and projecting from the face of the wheel, which pins engage in holes in the face of another wheel. This is as near the style of Defendants' Exhibit Pin-and-Hole Gearing as a mechanic would naturally make in using wood in the place of the iron of the exhibit.

According to the testimony of Johnson, it does not

appear that he claims to have invented the gearing between the handles of the Hall nipper unless such gearing consist of one tooth and notch. In his testimony already quoted, he says (x-Qs. 262 to 268, and 276 to 280) that at about the time he made Model C he put a pair of handles in the Jencks model, having a cog gearing consisting of two or more teeth concentric with the handle fulcra, forming a cog connection between the handles, and he does not know whether he did this before or after he made Model C. But he says, however, that the Jencks model has nothing to do with this invention, which, he says, in effect consists, not of a cog gearing between the handles, but of one cog and notch instead of two or more. Surely there is no invention in that, and if there is it does not appear that Johnson made it, for by the testimony of Adams, one of the complainant's witnesses, it appears that he made it and not Johnson. Adams says:

24 Q. Did you ever make any model showing your attempt to improve the nipper then made by the Interchangeable Tool Company, and when did you make it?

A. I did in the Spring of 1879; this is the model I refer to.

Model offered in evidence and marked Complainant's Exhibit, Johnson's Exhibit D. J. E. B., Sp. Ex'r., 20 June, 1884.

26 Q. Give the dates, as nearly as you can recollect, when this model was commenced and finished.

A. I should say in the month of May, 1879.

Q. Did you do all the work on it yourself?

A. I did not; Thomas Conners filed the pieces up to the lines which I laid out, I making the teeth which connect the handle

31 Q. Do you not know whether or not Moses C. Johnson, at or about the time you made Complainant's Exhibit D. made another

model showing improvements on the company's nipper?

A. He did afterwards; he was at work on the model at the time but completed his model after I made mine.

33 Q. Please examine the model now shown you and state if you know what it is and who made it, and when?

A. It is the model nipper made by Moses C. Johnson in the month of May, or thereabout, 1879.

Model offered in evidence and marked Complainant's Exhibit Johnson's Exhibit C. J. E. B., Sp. Ex'r., 20 June, 1884.

32 Q. How do you know that Johnson made this model, and what was it made for?

A. I told him to make it and I saw him to work on it. I furnished him the brass for the handles.

34 Q. When you say you told him to make it what words did you use in speaking to him?

A. I told him we must have a new model. Then we talked of some changes; I showed him my Exhibit D, he went on and made the model, and occasionally came for sanction and direction.

35 Q. What direction did you give him; state the words?

A. I said "Take that model of mine and change those teeth that interlock the handles so as to make the interlocking with one operation or one cut."

325 x-Q. I read to you from the same deposition questions and answers 27 to 30, inclusive?

"27 Q. Was or was not this model, "Exhibit C, the first you ever saw which "was provided with the two lips coming "nearly or quite together in front of or "above the end of the spring?

"A. It is the first and only one I ever "saw.

"28 Q. State, if you know, whose in- "vention the placing of these lips upon "a pair of nippers was?

"A. Moses C. Johnson's.

"29 Q. Will you please further ex- "amine model, Exhibit C, and state "whether or not this is the first model "or nipper you ever saw to which the "handles were interlocked by means of a "stud or projection in one handle work- "ing into a socket or depression in the "other?

"A. It is.

"30 Q. State, if you know, whose in- "vention that construction is and what "led to it?

"A Moses Johnson's invention. I told "Mr. Johnson to take the model Exhibit "D, and so construct the interlocking "arrangement as to make it with one "cut. This model, Exhibit C, was the "result."

Are the answers to those questions true?

A. They are to the best of my recollection.

329 x-Q. I read to you from the same depo-

sition cross-questions and answers 98 to 103 inclusive, as fellows:

"Q. Did you ever claim to be the in-
"ventor of this nipper?
"A. I did not.
"99 Q. Nor any part of it?
"A. I claimed to have made some im-
"provements.
"100 Q. What improvements did you
"claim to have made?
"A. The interlocking of the handles
"with a section of gear, 'as shown in
"Johnson's Exhibit D,' also placing the
"adjustable stop screw in the handle,
"instead of a pin through the two plates
"of the nipper, as shown in Hall's Ex-
"hibit 10, and the throwing out of the
"brass spring block.
"101 Q. Do you claim to be the in-
"ventor of the gear connection between
"the two handles, as shown by Johnson's
"Exhibit D?
"A. I do not.
"102 Q. What do you mean by saying
"that you claim to have made the im-
"provements of the interlocking gear
"between the two handles, in answer to
"question 100?
"A. I claimed to have improved the
"nipper by applying gearing to it; but
"do not claim to be the inventor of the
"connection of two handles by gearing.
"103 Q. I did not ask you whether
"you claimed to be inventor of a gear
"connection between two handles, but I
"did ask you, and I now repeat the
"question, whether you claimed to be
"the inventor of the improvement
"upon the Hall nipper, which improve-

"ment consists of the section of cog "gearing between the two handles, as "shown by your Exhibit D?

"A. The idea of a gear connection "between the two handles of the Hall "nipper was original with me as far as I "know."

Are the answers to those questions true?

A. They are, to the best of my recollection.

It is clear that Adams thought that Johnson's consisted of *one* cog and notch in contradistinction to *two* cogs and *two* notches, which is simply no invention at all—but Johnson leaves these distinctions out of his claim, and seeks to cover the whole of Hall's combination.

330 x-Q. I read to you from the same deposition cross-questions and answers 108 to 110 inclusive, as follows:

108 x-Q. Do you recollect whether you "told Mr. Thompson that you were "the inventor of any part of this nipper?

"A. I have always said that I was the "author of improvements in the old "nipper, never claiming the gearing of "two handles as my invention, only as "applied to the Hall nipper.

"109 x-Q. That does not answer my question?

"A. In the sense that I use the word improvement.

"110 x-Q. Did you explain to Mr. "Thompson that you claimed any of "the improvements upon the Hall nip-"per; and if so, what improvements "did you tell him you claimed?

"A. I did. I had thrown out the

" spring block, which was in the old Hall
" nipper, also applied sections of gear to
" interlock the handles."

Are the answers to those questions true?

A. They are, to the best of my knowledge.

334 x-Q. What do you understand Mr. Johnson's invention to be as applied to this nipper?

A. The elongation of the lips over the end of the spring in combination with the two jaws, two plates, two handles and spring, four screws holding the plates together, also a stop screw in one of the handles; I will add the handles being connected by prong and notch.

335 x-Q. Do you mean one prong and notch in contradistinction to two or more prongs and notches?

A. I mean one prong and notch, as shown in Complainant's Exhibit Johnson's Model C.

336 x-Q. In contradistinction to a gearing substantially like that in your model Complainant's Exhibit D?

A. Yes.

337 Q. I read to you from the same deposition cross-questions and answers 268 to 273 inclusive, as follows:

"268 x-Q. Now, it appears by your
" testimony which I have read to you, that
" you told Johnson to take the model, Ex-
" hibit D, and to construct the interlocking
" arrangement as to made it with one cut,
" and that Mr. Johnson did so. Now
" whose invention was that, yours or Mr.
" Johnson's?

"A. The demanding of one cut was
" mine; but the shape of the tooth and
" notch and general construction was Mr.
" Johnson's.

"269 x-Q. Please point out what inven-
"tion there is in the shape of the tooth
"and the notch beyond what you sug-
"gested to Mr. Johnson when you told
"him to make it with one cut; would not
"any one who had sense enough to put
"two and two together, make it as Mr.
"Johnson did after what you told him?

"A. I consider the design and form of
"any kind of a machine an invention. To
"the second part of the question, I say,
"'I think not.'

"270 x-Q. Now, Mr. Adams, please to
"state whether in point of fact the cog
"connection in Model C is made in mak-
"ing the nipper practically by one cut of
"the milling tool?

"A. One cut upon each handle.

"271 x-Q. Do you recollect whether
"or not you had a spring in your model,
"Exhibit D?

"A. I do not, though there might have
"been.

"272 x-Q. If you did not have a spring
"in the model, why could you have made
"the notches in the inside of the jaws
"for, just above their fulcra?

"A. The notch was made to represent
"the place to insert a spring.

"273 x-Q. You observe that the notches
"are there?

"A. Yes, sir.

Are the answers to those questions true?
A. To the best of my recollection, they are.

According to these questions and answers it appears that Adams invented everything in model C but the shape of the tooth and notch, and the elongation of the lips over the springs so as to come together. So

that, when Adams gives Johnson credit for the invention of model C, it must be understood with the limitation he has himself pointed out, and these limitations should be pointed out in the claim of the patent that we might know exactly what the invention is. If the patent is intended to be limited to one cog and notch, instead of two cogs and notches, and a long lip instead of a short one, the claim should say so.

Adams has no recollection of seeing the drawing of the Kennedy nipper (Defendant's Exhibit Drawing of Kennedy nipper) at the works of the company (x-Q. 252 to 256).

252 x-Q. I place in your hands a drawing, marked Defendants' Exhibit Drawing Kennedy Nipper. Please to examine it and state whether you ever saw it before; and if so, when?

A. Not to my recollection.

253 x-Q. State whether you ever saw a drawing like that, or substantially like that before; and if so, when.

A. Have no recollection of seeing this, or any other drawing like it.

254 x-Q. Did you not, at the time you went in the employment of the Interchangeable Tool Company, or within a short time after that, and before you put the pins to form the gearing in the first pair of handles, see such a drawing at the works or office of the Interchangeable Tool Company?

A. I don't recollect that I did.

155 x-Q. Do you swear that you did not?

A. I have no recollection of it now.

256 x-Q. Do you swear positively that you did not get from Mr. Thomas G. Hall, or from any of the officers of the Interchangeable Tool Company, a drawing showing a gearing between the handles of the nipper, with di-

rections to go on and manufacture the nipper with a gear connection between the handles?

A. I swear postively that I did not.

257 x-Q. Do you mean to swear, that you directed the alterations to be made in the nipper without instruction from any officer of the company?

A. I did not give directions how to make Model C, in all its particulars. I had no instructions in regard to the nippers; I think Mr. Gustam proposed the cut (circular) at the top of each plate running down towards the handle, on the outside of the plate.

The testimony of Complainant's witness Whitllesey upon this point is as follows:

130 x-Q. Do you recollect of seeing about the time you went into the employ of the Interchangeable Tool Company, in its shop before Model C was made, a drawing of cut of what is shown as the Kennedy Nipper, showing a cog connection between the handles such as I now show you?

(Witness shown Defendant's Exhibit No. 2, Drawing Kennedy Nipper).

A. I think there was a drawing of the Kennedy Nipper in the shop. At any rate there was a drawing of a nipper, showing the handles geared together. I think this is the one.

131 x-Q. Is is not true that the idea of gearing the handles of the Hall nipper was suggested by that drawing to your mind and to the minds of other workmen in the shop, and especially the minds of Mr. Adams and Mr. Johnson?

A. I think it was suggested by that draw-

ing. We all looked at it, Johnson, I and Adams. We saw the necessity of locking the handles together, and that suggested the way.

152 x-Q. Now where did that drawing come from, how did it get in the shop?

A. I think to the best of my recollection, Mr. Judge brought it in. He was a lawyer and used to be in the shop very often.

133 x-Q. Do you recollect of Mr. Judge, or Mr. Hall, bringing in the shop a lead pencil sketch of a nipper, or nipper handles, showing a pin gearing between the handles?

A. I have an indistinct recollection of a drawing being brought in, but couldn't recollect by whom it was brought in or what it represented.

134 x-Q. What if any authority did Mr. Hall have as to the management and control of the manufacturing business of the company?

A. Mr. Gustam was manager; I don't know what authority Mr. Hall had. He was president of the company, however.

135 x-Q. Did not Mr. Hall have general control of all the work and business of the company through Mr. Adams and Mr. Gustam?

A. I don't know what control he had. He used to talk a great deal to both of them.

As to the lip over the head of the spring, this witness says:

158 R-x Q. Before Johnson made his template, of which Model C seems to be a bogus copy or imitation, what, if any, suggestion did you or Mr. Adams make to him about putting in the spring and the cog connection between the handles?

A. I can't speak for Mr. Adams. I used to think—I always thought that I suggested the putting in that spring with the lip.

159 R-x Q. Do you mean by that that you were first to suggest the lip over the the top of the spring?

A. That is what I mean.

And as to the value of the elongated lip, this witness says:

145 R-d Q. I place in your hands Complainant's Exhibit 5th. Please examine, and state what difference there is, if any, in the construction of this, from Complainant's Exhibit 3rd.

A. There is a considerable difference in the thickness of the lip over the spring. The cutting edge is a little heavier on Exhibit 5th than on Exhibit 3rd. The lip holding the spring in Exhibit 5th doesn't project as high as it does in Exhibit 3rd.

146 R-d Q. Are those differences essential in the construction of the nipper?

A. I think one nipper would operate as well as the other.

Here we have Mr. Johnson claiming to be the inventor of the whole combination. Mr. Adams claims to be the inventor of the gearing between the handle of the nipper, and Mr. Whittlesy claims to be the inventor of the lips over the spring.

In concluding this point of our case, I call the attention of the Court to the fact that the patent to Hall, of November 5th, 1878, contains all the parts and combination of parts contained in the patent in suit—excepting the lips over the head of the spring, and the cog connection between the handles—and it is submitted upon the proofs presented that Hall had

added these two features to his nipper, thus completing the combination of the claim before Johnson *claims* to have invented it.

POINT SECOND

My second point is, that the case sought to be made on behalf of complainant, is false and fraudulent.

Johnson swears, as I have already shown (Q. 40), that between the tenth and twentieth of May, 1879, he commenced and completed a model of his so-called invention. Complainant produces this model. It appears in evidence as Complainant's Exhibit, Johnson's Exhibit C.

I propose to show that this model is a fraud; that it was not made at the time Johnson says it was; that it could not have been made, as Johnson says it was; and that it was not used for the purpose alleged on behalf of complainant.

To enable the Court to understand my argument upon this point, it is necessary to explain the process of making these nippers, and all similar tools, the parts of which are made interchangeable.

First, there is a model nipper made complete in all its parts. From this model nipper, templates are made to conform in shape and size exactly to every part of the nipper. From these templates there is made first the mills to conform exactly to the templates in shape and size. There is then made a set of milling fixtures, or vice jaws, also to conform in shape and size to the templates, the office of the mills being to cut the several parts to the exact form and size of the several parts of the model; and the office of the milling fixtures being to firmly hold the several parts during the operation of milling, the mills and milling fixtures conforming exactly in shape and size, so that the mills can cut close down to the surface of the fixtures

without striking them. And to keep the several parts of the nipper always the same in size and shape, the templates and gauges are continually tested by the model, and the mills and milling fixtures are continually tested by the templates and gauges. This arrangement necessitates a model, a set of templates, mills, and milling fixtures for each size of nipper; so that in case any of the parts of any nipper be broken it can be replaced by a new part, and sent from the works to any part of the country.

But before anything can be done toward the manufacture, there must be a set of dies made of all the principal parts of the nipper, into which the several parts are forged, and these dies must be made to conform exactly to the several parts of the model nipper, after which they are made, and without which they cannot be made. The die sinker must have a model to sink the dies by, or they can not be made. That is a *sine qua non* to sinking the dies.

After the dies are made the forgings are made by driving the heated steel with a heavy drop hammer into the die; the forgings are hence called "drop-forgings" and all of which, for any given part and size of nipper, are exactly alike.

Now, before Johnson went in the employ of the Interchangeable Tool Co. the company had caused a set of dies to be made for its No. 2 Nipper. Into these dies there had been a number of forgings made for this size of nipper, these dies having been made from a model made for the company by the witness Crane, some time in the Summer of 1878. But this model was not satisfactory and the company determined to have a new one made, and employed J. H. Jencks & Co. to make it. Johnson being then in the employ of J. H. Jencks & Co., was assigned by them to make this model for the Interchangeable Tool Co., and it was at the works of J. H. Jencks & Co., that Hall first met Johnson, Hall going there to have the model made and supplying Johnson with the forgings out of which Johnson made it. This model is termed in this case

the "Jencks Model." Now Adams, a witness for complainant, swears (in answer to x-Q. 222 to 224) that at the time he went in the employ of the Interchangeable Tool Company they had a lot of the old forgings made for the No. 2 Nipper, consisting of jaws, handles and plates, and that these forgings were condemned and sold for scrap, because they were wrong in shape and size and were drilled in the rough state.

Adams says:

> 222 x-Q. At the time you went in the employ of the Interchangeable Tool Company were there any of the old forgings there intended for the No. 2 nipper, and if so, state what forgings there were?
>
> A. There were jaws, handles and plates.
>
> 223 x-Q. What was done with them?
>
> A. They were condemned and sold for scrap.
>
> 224 x-Q. Why were they condemned and sold for scrap?
>
> A. Their size and shape were wrong, and most of the jaws were drilled in the rough state—and perhaps the handles.

Hall, in answer to Q. 119 to 120, says that the Jenck's Model Nipper was made out of these old forgings and that Johnson dove-tailed a piece in the shank end of the jaws, the forging being too short to make the jaw lever of the model long enough. Adams also, in answer to x-Q. 218 to x-Q. 222, swears to the same fact; as does Johnson also, in answer to x-Q. 251 and 252.

Hall says:

> 119 Q. You have stated in a previous answer that when the Jenck's Model Nipper was made you furnished Mr. Johnson the forgings out of which that nipper was made; now state, if you please, which dies those forgings

were made in, out of which Mr. Johnson made that model.

A. The first or original set of dies.

120 Q. In making the Jenck's Model, what if any, alterations did Mr. Johnson make in the forgings?

A. He dove-tailed a piece of metal on to the end of the shank of each jaw, for the purpose of elongating it.

Adams says:

218 x-Q. Do you recollect of Mr. Johnson's dove-tailing a piece in the shank of the Jenck's Model so as to lengthen out the old forging?

A. There was a piece dove-tailed in.

219 x-Q. Why was a piece dovetailed in?

A. I have no knowledge only from hearsay.

220 x-Q. What did you hear said, and from whom did you hear it?

A. I heard that the old forging was too short at the shank, and that it was lengthened by dovetailing a piece in. I heard it from Mr. M. C. Johnson.

221 x-Q. Do you not know of your own knowledge that the old jaw forgings were too short?

A. I think they were.

Johnson says:

251 x-Q. What alteration did you make in the parts or any of them that Hall furnished you to make the nipper of?

A. I made the long end of the jaw lever a trifle longer by dovetailing a piece on to the end.

252 x-Q. What was the piece you dove-

tailed on to the end; was it brass, or iron, or steel?

A. Steel.

Here we have the concurrent testimony of Johnson, Hall and Adams that the Jenck's Model was made out of the old forgings; that the shank of the jaw lever was too short and that Johnson, to make it the necessary length, had to dove-tail a piece of steel in the end of the forgings.

Referring, now, to Johnson's Exhibit C, Johnson says (Q, 36 to 39) that he made the handles of this model out of some materials furnished by Adams out of his private chest, and that he made the other parts of the model of material picked out of the refuse in the Interchangeable Tool Company's shop; and in answer to x-Q. 261, p. 156, he says he made the jaws of this model out of the old jaw-forgings he found laying around the shop of the company. Whittelsey swears to the same fact (x-Q. 90 and 91).

Johnson says:

36 Q. Where did you get the material for making the handles of this model nipper?

A. Mr. J. M. Adams gave me the material from his private tool chest.

37 Q. State, if you know, what the stamp was, part of which shows on one of the handles.

A. I do. It was the stamp of an Alarm Register Company. This register was for conductor's use.

38 Q. Was it on the material before you made the handle?

A. It was.

39 Q. Where did you get the material for other parts of the nipper?

A. They were picked up out of the refuse matter or material belonging to the Interchangeable Tool Company.

259 x-Q. Which part of this model Exhibit C, did you make first?

A. I think I made the brass handles first.

260 x-Q. After you had made the brass handles, how long was it before you made the jaws, or fitted the jaws to the handles?

A. Directly after.

251 x-Q. And you made them, you say, out of some old jaws which you found lying around in the shop?

A. That is what I said.

Whittelsey says :—

89 x-Q. Referring now to Johnson's Model Exhibit C, did you assist to make it; and if yea, what did you do towards the construction of the model?

A. I assisted. It consisted in filing off the cheek pieces of the two jaws?

90 x-Q. What were the jaws of that model made of?

A. Made from a couple of old forgings we had in the shop.

91 x-Q. Made in the the dies before they were altered?

A. I suppose so. They were jaws for the nipper, forged before I came there.

92 x-Q. In making this model were they re-forged in any way before you filed of the cheek pieces?

A. I have no recollection of their having been.

93 x-Q. Having filed off the cheek pieces would you not recollect whether these jaw forgings had been in the fire and re-forged, so as to enlarge them?

A. I don't recollect of their having been. I don't think they ever were, in fact.

Now, I call your Honor's attention to the fact that there are no pieces dove-tailed in the jaw-levers of this model C, for the purpose of lengthening them, nor for any purpose. And yet these jaw-levers, Johnson says he made of the same forgings, or forgings made in the same dies, in which the jaws of the Jencks model were made. But if there was not material enough in the old forgings for the Jencks model, how is it that there was material enough in these same forgings for this model? The jaw-levers of this model are quite as long as were those of the Jencks model, as is evidenced by the Defendant's Exhibit Templates, one of which Whittelsey swears (x-Q. 107 to 109) was made to fit the back of the jaw-lever of the Jencks model, and which Hall swears (Q. 159 to 160) were made to conform exactly with the Jencks model.

Whittlesey says:

107 x-Q. When you made the templates of No. 2 nipper, to what model did you make them conform?

A. I started and made a complete set for the Jencks Nipper first, and we afterwards abandoned the inside of the Jencks nipper, and made the template to conform to the inside of the jaw of Exhibit C. This relates exclusively to the jaws.

108 x-Q. The template that you made to conform to the inside of the jaws of Exhibit C, did it fit the form of the jaw exactly when you made it?

A. It probably did. I would make a template as close as I could.

109 x-Q. And is the same true as to the templates you made to conform to the outside of the Jencks Model nipper?

A. It is.

Hall says:

159 Q. Please to examine the templates now shown you, and state if you know what they are?

A. They are the jaw templates for the No. 2 nipper belonging to the Interchangeable Tool Company.

Templates offered in evidence and marked Defendants' Exhibit Templates, J. E. B., Sp. Exr., April 3d, 1884.

160 Q. State if you know by what model these templates were made?

A. The model known as the Jencks Model, about which I have testified.

161 Q. State who made these templates?

A. They were made, to the best of my knowledge and belief, by Mr. E. A. Whittlesey.

Upon cross-examination, Johnson's attention being called to these facts, he attempted to explain them by saying that in making the jaws of model C he used the file only, and that he removed as little stock as possble from the outside of the jaw-lever, leaving at the same time as much as possible on the inside; and that it was possible that he might have heated and drawn them in the fire. But upon being pressed, he would not swear that in fact he did heat and draw them in the fire (Johnson x-Q. 330, above quoted), and unluckily for the whole theory of his answer, there was no surplus stock anywhere in the jaw-lever to be utilized in the manner he suggested. The forging was too small as a whole. It was too narrow and too short. He could by no possibility make one end of the jaw-lever long enough without making the other end too short. In making a *model nipper* it was absolutely necessary to maintain the proper relative proportion, which he could not do by changing the relative position of the pin on which the lever swings, for in that

case, either one end or the other of the lever would be too short, and Johnson's suggestion that he may have heated the lever, and drawn it down in the fire is effectually disposed of by the testimony of Whittlesey above quoted (x-Q. 89 to 93) who says that he assisted Johnson to make this model C by filing off the cheek pieces of the jaw-levers, after which there certainly could be no material to draw down in the fire. And this witness says he does not think they were drawn down in the fire; at all events, he has no recollection of it being done.

Johnson attempts further to explain this difficulty by saying that in making the Jencks model nipper he was furnished with old forgings in which the hole for the fulcra was already bored, whereas in making model C he selected forgings that had not been thus bored. But as I have already shown, the forgings being too short as a whole, he could not change the relative position of the fulcra holes without making one or the other end of the levers too short, and moreover, it is not reasonable to believe that in making the Jencks model Johnson would have gone to the trouble of dovetailing a piece on the end of the lever, when, by simply getting a set of forgings that had not been drilled, he could obtain the necessary length without resorting to that troublesome expedient. The company had hundreds of these old forgings at the time Johnson made this model, as sworn to by both himself and Adams, and it is incredible that Johnson would have patched his work when he could have avoided it as well as not. Skillful workmen do not patch when they have the means at hand to avoid it. The truth is, it was simply impossible to make model C out of the old forgings. They were not only too short, they were also too narrow. There was nothing like stock enough under the throat to form the long lips over the top of the spring-seat, that appear in the model Exhibit C, (p. 167, Q. 338; Whittlesey Interference Record, p. 125, Q. 136 to 138.) It is incredible that the company would have gone to the expense of having

a new set of forging-dies made if the old forgings were long enough, as they certainly were if the jaws of Exhibit C were made from them.

Another evidence of the fraudulent production of this model is found in the fact that the templates of the No. 2 nipper do not fit it. Those templates appear here as Defendant's Exhibits Templates. Hall identifies them (Q. 159 to 161) as the company's No. 2 gages, and says that Whittlesey made them, and that they were made to conform exactly to the Jencks model nipper as altered. Whittlesey recognizes them, and admits that he made them, and says he made one of them to fit the outside of the Jencks model, and the other to fit the inside of model C, and that they were made to fit the model accurately. But he admits that they do not now fit the jaws of model C, and says that either the jaws or the templates are not the same.

This witness being for complainant, attempts to throw some doubt upon the genuineness of these templates; but he finally admits, (R-x-Q 157), upon trying them on Complainant's Exhibit 3d, that the company's No. 2 nippers are evidently made from these templates, and ought, therefore, to fit exactly the jaw-levers of Model C. But they do *not* fit these jaw-levers, showing conclusively, as I think, that the templates were not made from that model, and that the model is an imposition and a fraud, made by Johnson after he left the employment of the company, for the purpose of the interference, and sworn to by himself and his fellow workmen at the instigation of the complainant, Thompson, to cheat the Interchangeable Tool Company out of its patent.

The witness Whittlesy testifying upon this point, says:

94 x-Q. When that model (Ex. C) was orig-

inally made, to what side plates were the jaws originally fitted?

A. To the Jenck's Nipper Model side plates.

95 x-Q. And did one of the side plates of the Jenck's Model Nipper originally make a part of that Model Exhibit C?

A. It did.

96 x-Q. Does that some side plate made a part of that same model now?

A. No.

97 x-Q. Do you wish to be understood as saying that the handles and jaws of Johnson's Model Exhibit C, were originally fitted to one of the side plates of the Jenck's Model Nipper, and that one of the side plates Jenck's Model Nipper originally formed a part of the model made by Johnson, and known here as Exhibit C?

A. To the best of my knowledge and belief it did.

98 x-Q. Did you make the templates of the new No 2 nipper?

A. I did,

99 x-Q. Would you recognize them if you saw them?

A. I think I should.

100 x-Q. I hand you Defendant's Exhibit Templates. Please state if you recognize them as the templates you made for the No. 2 Nipper?

A. I think they are the ones I made, and in the same condition as when I made them. I would not swear to the inside templates. It is very much like it, but after five years, I will not swear to the identy of it. It looks like my work. The outside one I am positive is mine.

101 x-Q. Why do you think the inside one is not yours also. Have you tried it on any

of the jaws of the No. 2 nipper, that makes you think that it may not be the templates that you made?

A. That is the reason why I think it is not. I have tried it on a jaw that was milled with the first set of mills when they were new. I should say that is what produced the doubt.

102 x-Q. Have you the jaws with you upon which you tried these templates, and if yea, will you please produce them?

A. I have and do produce them. I have two; one has the first two cuts, and the other one is completed.

Defendant's counsel offers the jaws in evidence, and the same are marked Defendant's Exhibit Whittlesey's jaws, J. E. B. Sp. Ex'r. 4, 22 July, 1884.

Complainant's counsel notes that witness had kept these jaws as samples of the work, and he will call for their production on the trial.

103 x-Q. Please take these jaws and mark them for identification?

A. I have marked said jaws with the letters "E. A. W." for identification.

105 x-Q. When was the jaws of Exhibit C fitted on to the side plate that now makes a part of that model?

A. I don't know.

106 x-Q. Did that side plate make a part of Exhibit C during the time that you were in the employ of the Interchangeable Tool Company?

A. I don't remember ever having seen it (the handle and jaws) assembled on that plate while in the employ of the Company.

121 x-Q. You have expressed some doubt as to whether the templates for the inside of

the jaw is the same template that you made. Can you swear that it is not the same template you made?

A. I cannot.

122 x-Q. If it is the same template that you made, and you fitted it to the inside of the jaws of the Johnson Model it would fit that model exactly, would it not?

A. It would be a close fit.

123 x-Q. Please to try the templates (Defendant's Exhibit Templates) on the jaws of of the Johnson Model Exhibit C, and state whether it fits it closely?

(Witness tries the said jaws on template.)

A. It fits pretty near, but it does not fit as close as I should fit a template.

124 x-Q. Upon your examination of these jaws, and upon trying the templates upon them, is it your opinion that either the template is not the same template that you made or that the jaws are not the same jaws to which you fitted the template?

A. It is either a different jaw, or this is not the template I made.

147 R-d Q. Please compare the jaws of Exhibits 3rd and 5th, with Defendant's Exhibit Templates, and state which fits the closest?

A. Exhibit 3rd fits the closest.

148 R-d Q. To what degree?

A. Almost a perfect fit on Exhibit 3rd. The other one seems to be considerably off away from the guage.

149 R-d Q. How do they compare with Complainant's Exhibit C?

A. One of the jaws on Exhibit C fits it very nearly; the other does not. Neither one of the jaws of Exhibit C fit the template as well as Exhibit 3rd does.

156 R-d Q. Why do the jaws of Exhibit C differ? Can you tell?

A. I don't know the cause of their differing. One may have been filed more, or been machined, or something.

157 R-x-Q. Upon trying the templates upon Complainant's Exhibit 3d, assuming that nipper to have been made by the Interchangeable Tool Company, is it not your opinion that the templates Defendant's Exhibit Templates, are the templates, by which the company's No. 2 nipper is made?

A. They fit it very close; I should say the mills were made by that template for the jaws.

The Complainant's Exhibit 3d is the so-called infring nipper; it was made by the Interchangeable Tool Company. The tem plates of their No. 2 nipper fit it exactly, but they do not fit Model C, showing conclusive that the templates are the same and that Model C is a fraud.

Another evidence that this model is bogus is found in the fact that it is not such a model as the die-sinker could use in sinking the company's new dies.

These dies were made by a man named Kennelly at the works of the Colt's Patent Fire Arms Manufacturing Company, who is produced here as a witness. He swears (Q. 15 and 16) that he made the dies from a model of a completed nipper, brought to him by Hall, and that (Q. 25) he never saw model C until the day he gave his testimony in the interference, and could not, therefore, have used it sinking the dies.

Testimony of Kennelly.

15 Q. Please to state whether or not that model has a cog connection between the handles.

A. The model had what we considered a

male and female handle; it had a tooth connection between the handles; the same forgings intended to make both male and female handle.

16 Q. State whether or not that model was the model of a complete nipper, or the model of the handle only?

A. I have seen the model of the complete nipper before the superintendent instructed me to anneal the dies and re-sink them according to Mr. Hall's directions.

25 Q. Please to look at this model, marked Johnson's Exhibit C, and state whether you have seen it before to-day?

A. No, sir; I have not.

This so-called model C is really not a model in any proper sense. It is really nothing but a mere template of which a die-sinker could make no use. He must have the completed model or duplicate of it, to fit his die by. Now, it is certain that Kennelly did make these dies, that he did have a completed model to make them by, and that he did not make them from model C.

Another evidence of the fraudulent nature of this model is found in the fact that the model itself bears the most conclusive evidence of having been milled in the mills and milling fixtures of the company's No. 2 nipper, which it could not possible have been if it were made before these mills and milling fixture were made, as it must have been if it were the model of the company from which its templates, mills and milling fixtures were made.

Hall, (Q. 164–167), Whittlesey, (R-x-Q 156) and Kennelly (x-Q-27), all swear that at least one of the jaw-levers of model C has been through the milling tools. Now, it is certain that the jaws of this model could not be milled before the mills and milling fixtures were made. And if the model was made as, and at the time Johnson and complainant's witnesses say it was, it could not get through the mills at all.

It is certainly true that one of these jaws, at least, has been milled, and it is equally true that it has been milled in these fixtures (Defendant's Exhibit Milling Vise Jaw), they being the No. 2 milling fixtures of the company. That is apparent upon mere inspection, and is sworn to by both Hall and Whittelsey. And Hall, Q. 166, swears, as is manifest upon mere inspection, that these jaw levers could not be milled on their edges in their present condition, for the reason that they could not be held in the milling fixtures during the operation of milling; the lever being too thin for the milling fixture to clamp, and hold, the cutting end of the lever being wholly unsupported for the action of the mills. Now, it is perfectly plain, that unless these jaw levers can be firmly held in the milling fixtures they cannot be milled. And that the jaw levers of this model cannot be so held in these fixtures is equally plain, for the reason that they are two thin to fill the jaws of the fixtures.

These fixtures are made to hold the jaw forgings in their rough state, the jaw levers being milled first on their edges and then on their sides. The cheek pieces of the jaws fit the form of the fixtures, by which the lever is firmly supported from end to end while being cut by the mills. But if the cheek-pieces be cut off, as in this model C, it is clear that there is nothing to support the cutting end of the lever; and if the lever be cut down on its sides to the finished size before the edges are milled, the fixtures will not hold it, because it is too thin to fill the jaws. It follows, therefore, that after the jaw levers of this model C were made they could not be put into these fixtures and a cut taken off of them with the milling tools, so as to leave the milling marks now plainly apparent upon the jaw lever.

And it follows, also, that this model could not have been made as, and at the time Johnson says he made it, and have on it these marks of the milling tools.

Hall upon this point testifies as follows:—

A. One of the jaws has certainly been mill-

ed by a gang of mills used for milling the jaws of the No. 2 Nipper. The milling marks are plainly visible on the jaw.

165 Q. Please to produce the milling vise jaws in which the jaws of your No. 2 Nipper were milled down to October, 1875?

A. I now produce such milling-vice jaws, being the same vise jaws as were in evidence in the interference case, as Hall's Exhibit No. 19.

Vice jaws offered in evidence and marked Defendant's Exhibit Milling-vise Jaws J. E. B. Sp. Exr., 3 Apl., 1884.

166 Q. Please to try the skeleton jaws of Johnson's Exhibit C, in these milling-vise jaws, and state whether, in your opinion, they have been milled in those vise-jaws, and give such reason as you may have for any opinion you may express.

A. In their present shape they could not be milled in vise-jaws. They have been filed down since the milling, on the sides. I believe that the jaws were milled in these vise-jaws, but it was done from forgings.

I mean that the jaws were milled from forgings, before they were filed down on the sides.

The reason for my opinion is that the jaw has been milled beyond a doubt, and that it could be only held in the vise-jaws for milling while in the shape of a rough forging.

167 Q. Do the edges of the skeleton jaws conform exactly to the shape of the milling-vise jaws?

A. They do, as nearly as it is practical to have them. There must be a little clearance to protect the milling tools.

Whittlesey on the same point says:

156 R-x Q. Is it not evident upon an examination of the jaws of Exhibit C that one of them has been through the mills of the company?

A. It is. One shows milling tool marks.

Kennelly on the same point says:

27 x-Q. Will you please examine carefully the marks of a milling tool on one of the jaws of Exhibit C. and say whether you think that those marks are merely scratches made by a milling tool coming in contact with the jaw, or whether the jaws was milled into its present shape.

A. That would be impossible for any man to decide, whether that comes from the machine milled with one three-hundredths of an inch or one three-thousandth of an inch. It is evident that milling marks are on the edges of the jaw at present, and it has the appearance of being milled to conform to its present shape.

Johnson's attention being called to these milling marks on his so-called model, says. (x-Q. 324), that he used the jaws of this model to set the mills by, and that it is possible the mills may have taken a light cut off of one of them. Now, the idea of using the *model* to set the mills by, and taking a light cut off it, is something that Johnson, or any other competent tool maker, would never do; the model is used to set the mills undoubtly, but the idea of a tool maker destroying his standard model by which all his tools of that class and size are to be gaged, is palpably absurd. In the first place, the jaw levers of this model could not be held in the fixtures, as I have shown; and in the second place, if these jaw levers were used to

adjust the mills by, and light cuts taken off of them, as Johnson says they were, they would lose their proper outline and cease to be models for any purpose. And, moreover, they would have to be continually in use for that purpose, for the mills are taken out and ground at least once a week, as sworn to by Whittelsey (R-x-Q. 155), and Johnson testifying about this model (x-Q. 361–398) says that he took this model out of the company's shop in July, 1879, and that it never returned again to the shop of the company. The model certainly could not, therefore, be used to adjust the mills by—an adjustment that had to take place at least once a week, or every time the mills were ground.

Upon this subject Mr. Johnson says:

324 x-Q. Were not these jaws of Exhibit C milled by the same tools that the jaws of Exhibit 10 were milled by?

A. I filed the jaws of Exhibit C. They were not milled. It is possible after starting the mills and the fixtures, I used on of these jaws to locate my cuts, and possibly the mill has touched the jaw in profile. Probably it did. It was used for that purpose. The other I think was not used for this purpose.

325 x-Q. Please to look at the jaws of this model Exhibit C, and tell me if the marks of the milling tools are not on it as plainly almost as if it had just come out of the milling tool?

A. I know of no reason why they shouldn't be as my previous answer would state how they came there.

326 x-Q. Was the jaw of the model Exhibit C the shape it is now when you put it in the milling fixtures?

A. Generally speaking, it was.

327 x-Q. How did you fasten it in the milling fixture?

A. It was fastened in the regular way like all other work. It was a milling machine fastening, a milling machine vise.

That is Johnson's explanation, but Whittlesey testifies:—

155 R-x Q. How often do the mills for milling the jaws have to be ground and reset?

A. That depends a good deal on the metal. If they were annealed soft and were clean—that is free from scales—the mills used to run a week. In hard metal, they would probably run two or threee days.

And Mr. Johnson testifying further about this model says:—

361 x-Q. Who directed you to make Exhibit C?

A. I think I directed myself.

362 x-Q. Made it of your own motion without direction of anybody?

A. I think I did.

363 x-Q. In the Company's shop?

A. In the Company's shop.

364 x-Q. In the Company's pay?

A. A portion of it.

365 x-Q. Wasn't the whole of it made in the Company's pay?

A. I think not—but if it had, I don't see as it would make any difference as regards this case.

366 x-Q. What portion of the model do you think was not made in the Company's pay?

A. I couldn't state.

367 x-Q. What did the Company pay you for your services?

A. At the time model C was made I was receiving three dollars and twenty-five cents per day.

368 x-Q. Did not Mr. Adams direct you to make his model Exhibit C?

A. I don't remember that he did.

369 x-Q. Will you swear that he did not?

A. I will not swear to that.

370 x-Q. Was not this model C made in the Company's shop, and in the Company's pay, the property of the Company?

A. I have not stated that it was made entire in the Company's pay or out of material belonging to the Company—and if it had been, the pieces and parts themselves might have been the property of the Company, but the invention was mine.

371 x-Q. Have you been in possession of this model ever since it was made?

A. I have not.

372 x-Q. In whose possession has it been?

A. I don't know.

373 x-Q. How much of the time has it been in your possession?

A. That I don't know.

374 x-Q. When did it come in your possession?

A. At different times.

375 x-Q. When did it first come in your possession?

A. I have no record of the time.

376 x-Q. I didn't ask you whether you had a record, I asked you when it came in your possession?

A. I don't know.

377 x-Q. Did you take it with you from the Company's shop?

A. No.

378 x-Q. Who took it from the Company's shop?

A. I don't know.

379 x-Q. Don't you know how you came in possession of the model?

A. I came in possession of it at different times.

380 x-Q. I asked you how you came in possession of the model?

A. I am trying to answer the Attorney's questions. My previous answers would show what I know of it.

381 x-Q. None of your answers show how you came in possession of that model. Please to state how you came in possession of it?

A. I came in possession at different times.

382 x-Q. Question repeated.

A. The answer is repeated.

383 x-Q. Does the witness decline to answer?

A. I am trying to answer correctly, and will do so. Different parties gave me different parts of the model at different times.

384 x-Q. Who gave you the handles of the model?

A. Mr. Adams gave me the stock they were made of from his private property and I made them.

385 x-Q. I didn't ask you who gave you the stock, I asked who gave you the handles?

A. No one gave me the handles, I made them.

386 x-Q. Have you been in possession of the handles ever since you made them?

A. I haven't had them in my pocket; I have known where they were—that is I am reasonably certain that I knew.

387 x-Q. Have they been in anybody's else

possession since you made them, beside your own?

A. They have been in the Company's shop since I made them, I mean the Interchangeable Tool Company's shop.

388 x-Q. How long were they in the Interchangeable Tool Company's shop after you made them?

A. About one year; possibly a little less.

389 x-Q. Did you take them with you when you left the employ of the Interchangeable Tool Co.?

A. I took one of the handles with me.

390 x-Q. Which one?

A. One of the two—I have no means of knowing which of the two. It was one of those two.

391 x-Q. How did you get the other handle?

A. I think Mr. Louis Smith gave it to me.

392 x-Q. When?

A. I don't remember the month. Possibly, June, 1880.

393 x-Q. Was Mr. Smith then in the employ of they Interchangeable Tool Company?

A. I think he was. He told me so. I don't know positively that he was.

394 x-Q. When you left the Interchangeable Tool Company did you take the jaws of this model Exhibit C, with you?

A. I had the jaws with me months before I left there: in my trunk.

395 x-Q. Did you keep them in your trunk and take them away with you when you left the employ of the Interchangeable Tool Company?

A. They have been in my trunk for months—of course they must have been with me

where I was. They were in my trunk at that time, that is what I mean to say.

396 x-Q. How long had they been in your trunk before you left the employ of the Interchangeable Tool Company?

A. I think I put them in my trunk in July, 1879; that is about the month. I don't remember the exact time.

397 x-Q. Did they remain in your trunk from the time you put them there until you left the employ of the Company?

A. I think they did. My wife has the key to my frunk. She possibly may have tak n them out.

398 x-Q. Did the pieces continue to remain in your trunk after you left the employ of the Interchangeable Tool Company?

A. I think they did.

399 x-Q. Now as to the side piece that holds the jaws, did you have that in your trunk also when you were were at work for the Interchangeable Tool Company; did you put it in at the same time and did it continue in your trunk till after you left the employ of the Interchangeable Tool Company, to the best of your knowledge and belief?

A. I think I did put it in about the same time.

400 x-Q And after you got the handle from Mr. Louis Smith in 1880 you had all the parts, excepting the screws and the spring, where did you get them?

A. I had the spring in my possession from the time I made it, which was in May, 1879, The screws, I think I had in my trunk, put them in about the same time. I was making drawings for milling fixtures for the Company and I used these jaws for marking

the outline and placing my fixture at the proper angle, etc.

401 x-Q. Did you have your trunk at the Shop?

A. No.

According to Whittlesey it was necessary to set the mills at least once a week—and according to Johnson the model C was used to set them by—but how were the mills set by this model when Johnson says he took it away from the company's shop in July, 1879, and kept it? the model never again returning to the shop or the possession of the company. The model is alleged to have been completed by May 20th, 1879, and was taken away from the shop in July following. The model nipper of the company, the standard by which all the parts of the manufactured nipper were being made and the mills set, were locked up in Johnson's trunk and kept there for ten months before Johnson left the employ of the company. The statement is preposterous—either model C was not the company's model nipper or it was not locked up in Johnson's trunk.

I call your Honor's attention to another evidence of the fraudulent character of this model, found in the testimony of Whittelsey and Adams. Whittlesey in his testimony in the interference, in response to x-Q. 149 marked one of the jaw levers of this model with the letter *W*, for the purpose of distinguishing it from the other jaw, that being the jaw on which the milling marks are found. And Adams in giving his testimony in the interference (x-Q 273 to 276, P. 181 and 182) refers to this letter *W* as the letter *M*, and says it was put on the model by his direction to identify it as the model nipper. Now, the letter *W* that Whittlesey put on this jaw lever, is still on it; but there is no letter *M* on it. So, according to Adams, this can not be the same model Johnson says he made between the tenth

and twentieth of May, 1879, for the letter M is not on it.

Here is the proof of the marking of this jaw by Whittlesey.

149 x-Q. Please to mark one of the jaws I now hand you, one that has the appearance of being milled, so that it can be distinguished from the other jaw?

(Witness marks the jaw handed him W.)

Have you marked the jaw with the letter W.

A. I have.

Adams' testimony upon this point is as follows:

354 x-Q. Referring again to the same model I read to you cross-questions and answers 273 to 278 inclusive (pp. 181 and 182):

"273 x-Q. Can you state certainly that "the jaws now making part of model "Exhibit C are the same jaws that first "made a part of that model?

"A. To the best of my recollection "they are.

"274 x-Q. Have they any peculiarity "or mark upon them, by which you can "identify them as the same jaws?

"A. There is the mark M which we "had on our original jaws meaning "'model,' or standing for 'model.' Their "general appearance gives me the im-"pression that they are the same.

"275 x-Q. Please point out the letter "'M,' as being on this model.

"A. (Witness points out the letter "scratched in the right hand jaw, when

"the model is turned with the jaws "uppermost). I mean the jaw with the "milling marks on the inside and out- "side edges.

"276 x-Q. Was that the letter put on "the model at the time it was made to "identify it as the model nipper?

"A. It was put on to indicate the "model jaw.

"277 x-Q. Well, when?

"A. I do not recollect.

"278 x-Q. Well, do you recollect seeing "it when the model was in the works of "the Interchangeable Tool Company?

"A. I have that impression, but am "not positive."

Are the answers to those questions true?

A. They were to the best of my recollection.

And a further evidence of the bogus nature of this model is found in the testimony of Whittelsey in this case already quoted. He swears (x-Q. 94-97) that the side-plate that now makes a part of this model is not the same side-plate that originally made a part of it. The original side plate, as Whittlesay says, being one of the side-plates of the Jencks Model—an admission from one of the complainants' witnesses that the model is bogus, at least in some of its essential parts. Indeed, the general effect of Whittelsey's testimony is to leave the impression that Johnson in May, 1879, made some sort of a template of the nipper, but he says plainly that either the jaw levers of the model are bogus, or the templates are bogus, because the jaws do not fit the templates. The templates, however, are proved to be the company's No. 2 templates by the fact that they exactly fit the company's No. 2 Nipper, Complainant's Exhibit No. 3, and as sworn to by Hall, as quoted.

I call your attention also to the fact that Hall, Oliver and Harris all three swear positively that they neither

of them ever saw Model C until it was put in evidence. (Hall Q. 155; also p. 222; Oliver, x-Q. 150; also Harris p. 227.

Upon this point Hall testifies as follows:

152 Q. Please to examine the skeleton model now shown you, marked Johnson's Exhibit C, being the same exhibit offered in evidence on behalf of Johnson in said interference, and state whether you were present at the examination of Moses C. Johnson at at the time that the model was put in evidence in the interference case.

A. I was.

153 Q. State whether you examined that model at that time?

A. I did.

154 Q. State whether that model is the same now as it was at that time?

A. I notice one difference: that the letter "W," scratched on one of the jaws, was not there when it was first produced. I do not notice any other difference.

155 Q. State when you first saw that model?

A. On the day it was first produced in the interference case. I can't recall the date. It was the day it was put in evidence.

156 Q. Are you positive that you never saw that model in the works of the Interchangeable Tool Company?

A. I am.

157 Q. State whether it would be possible to make the skeleton jaws of Johnson's Exhibit C of the old forging of the Interchangeable Tool Company—I mean, of course, the forgings that were made in the dies of the

company before they were altered, as you have testified.

A. I think not.

158 Q. Would it be possible for the die-sinker to sink the dies to make the jaw-forgings in, by the skeleton jaws of this Johnson's Exhibit C?

A. No.

Oliver testifies as follows:

150 x-Q. Will you swear positively that you did not see Johnson's Exhibit C in the shop in Hudson street, or any other place, before you saw it in the interference case?

A. I will swear postively that I did not see it.

And on being recalled testifies as follows:—page 252.

Q. Please to examine Complainant's Exhibit Johnson's Exhibit C, and say when and where you first saw it?

A. I saw it first during the trial of the Interference case, at Mr. Broadnax's office in New York on my examination.

Q. State whether or not you ever saw that model, or any parts of it, at the shop of the Interchangeable Tool Company, in Hudson street, New York?

A. I never saw the model there, and can identify none of the parts.

Q. I read to you questions and answers of James M. Adams' examination-in-chief in this case, questions 56 and 57?

Reads:

Please to state whether the answers to these questions are true or false in so far as they relate to you and to Complain-

ant's Exhibit Johnson's Exhibit C.

A. As to my having seen that model there they are not true. I have no recollection of having seen either of the parts; it is possible that I may have seen them without recollecting them.

The following Q. 56 and 57 of Adams testimony contradicted by Oliver.

56 Q. Was Mr. Thomas G. Hall, James F. Oliver, Samuel Leopold or David L. Harris, ever in the shop in Hudson street, when nippers or tools after Johnson's model were being made, and if so, how often?

A. Hall, Oliver and Harris, were in there frequently.

57 Q. Did either of them ever see or examine Complainant's Exhibit C, Johnson's Model, at the shop in Hudson street; and if so, who examined it?

A. They have all seen it to my knowledge in that shop in Hudson street; I have seen it in the hands of Hall and Oliver, I should say a good many times.

The following is the testimony of Harris recalled upon the same point, Page 252.

Q. Are you acquainted with James M. Adams?

A. Yes.

Q. I read to you from the testimony in chief of James M. Adams questions 56 to 58 inclusive and their answers:

[Counsel reads.

Q. Please to examine Complainant's Ex-

hibit Johnson's Ex. C, and state whether or not the answers I have read to you in so far as they relate to you and the model in question are true or false?

A. I can say that this model you call Johnson's model was never shown to me by Mr. Adams.

Q. State whether you ever saw that model in the shop of the Interchangeable Tool Co. in Hudson Street?

A. No.

Q. State when you first saw that model?

A. The first time I recollect seeing it was in Mr. Barnard's office in the Summer of 1884.

The question and answer of Adams 56 to 57 here contradicted are quoted above.

Mr. Hall being recalled testifies as follows—Pages 249 and 250.

Q. I call your attention to Complainant's Exhibit Johnson's Exhibit C. Please examine and state if you recognize it as the same model upon which you were examined when you gave your testimony in this case before?

A. I do.

Q. I read to you the following questions and answers of the testimony of James M. Adams. (Reads Nos. 56 and 57, examination in chief, p. 34 of the printed record). State whether or not the answers to those questions are true or false?

A. As far as the answers refer to myself, it is an unqualified falsehood.

Q. I read to you also question and answer 62 of the same disposition. State whether or not that answer is true or false so far as it relates to yourself?

A. It is false.

Q. I read to you also question and answer 63, same deposition. State whether that answer is true or false?

A. It is false.

Q. I read to you also question and answer 64 of the same deposition. State whether or not that answer is true or false?

A. The answer is false; I would like to qualify that. Extra forgings were made, but they were not made from this model C.

Q. State if you please, whether you ever saw that model *C* in the shop of the Interchangeable Tool Company?

A. I never saw it there.

Q. I read to you question and answer 79 of the same deposition, of the printed record. State whether or not in view of the answer of Mr. Adams to that question you still insist that the answer made to Q. 19 is true?

A. I do.

Q. I read to you question and answer 112 of Adams' deposition. State whether or not that statement is true or false?

A. Never had any such conversation.

Q. I read to you also questions and answers Nos. 113 and 114. State whether the answers to questions, so far as they relate to you are true or false?

A. They are false, I never conversed with Mr. Adams on the subject at all.

Q. I place in your hands Defendant's Exhibit Templates, please state whether they are the same templates as those put in on your behalf, in the interference?

A. They are the same.

Q. Please to state whether those are the same templates by which all your nippers were made during the time Johnson was in

the employ of the Interchangeable Tool Co?

A. They are for that size of nipper, No. 2.

Q. Please to state whether these templates are now in the same condition that they were at the time Johnson was in the employ of the Interchangeable Tool Co.?

A. They are, to the best of my knowledge and belief. I have never known of any change.

Q. Could any change be made in these templates without you knowing it?

A. Not while in the shop; I only referred to that subject since the templates have been out of my hands in the interference case.

Q. State if you know who made these templates?

A. Mr. Whittlesey made them.

Q. Please to try those templates upon the jaws of the Model Exhibit C., and state whether or not they fit the model.

A. They do not; neither of them do.

Q. State whether or not these templates would fit the jaws exactly if they had been made to conform to that model, as a model nipper?

A. They would, necessarily.

Q. At the time you commenced to manufacture the No. 2 Nipper, had all of the templates, dies, mills and milling-tools, appertaining to the manufacture of the No. 2 Nipper been completed?

I refer now to the No. 2 Nipper as put upon the market about July 1, 1879, as you have testified?

A. They had.

Q. Please to describe, or state rather, the different steps taken in the production of the No. 2 Nipper as manufactured by the Interchangeable Tool Company?

A. The first step in producing the goods is to make the drop-forgings; next the milling of the parts; following, is the drilling of the holes; then the tempering, polishing and assembling the parts.

Q. You don't quite understand my question; please state whether or not in the production of this nipper you commence by first making a model nipper; then templates from that model; then dies from that model in which the drop-forgings are made; then mills and drills by the templates and milling vise-jaws to hold the parts during the operation of milling?

A. Those are the first steps taken; in my previous answer I referred to the manufacture alone.

Q. Are all of these several parts of the nipper made interchangeable?

A. They are.

Q. State whether or not in the view of the interchangeable quality of the several parts of the nipper, it is necessary in its manufacture that all of the parts must be made to fit the templates, and conform exactly to the model nipper, through all the time of manufacture of the nipper?

A. Yes.

Q. During the time that Mr. Johnson was in the employ of the Interchangeable Tool Co., what parts of the jaw were milled first?

A. The top or outside part.

Q. Which part was milled next?

A. The opposite or inside edge where the cutting edge is.

Q. Do you know that of your own knowledge?

A. I do, positively.

Q. Referring now to Defendant Ex. Milling

Vise Jaws, state whether or not it would be possible to mill the outside and inside edges of the jaw or nipper in these vise-jaws after the sides of the nipper-jaws had been milled?

A. It is not possible in my opinion.

The following are questions and answers of Adams contradicted by Hall in the foregoing testimony:

56 Q. Was Mr. Thomas G. Hall, James F. Oliver, Samuel Leopold or David L. Harris, ever in the shop in Hudson street, when nippers or tools after Johnson's Model were being made, and if so, how often?

A. Hall, Oliver and Harris were in there frequently.

57 Q. Did either of them ever see or examine Complainant's Exhibit C, Johnson's Model, at the shop in Hudson street, and if so, who examined it?

A. They have all seen it to my knowledge in that shop in Hudson street; I have seen it in the hands of Hall and Oliver, I should say a good many times.

62 Q. Did you ever talk with Thomas G. Hall about Complainant's Exhibit C, Johnson's Model, when Hall had it in his hands in Hudson street, in 1879, and how often?

A. I have very often as the model was being made, and after it was completed.

63 Q. Was not this the model from which all the Interchangeable Tool Company's Nippers No. 2 size were made?

A. It was the model.

79 Q. In answer to question 19 of Hall's direct testimony, which question reads as follows:

"And ever since that I understand

"you, the projection or lip over the head "of the spring in the No. 2 nipper has "been made from 1-32 to 1-64 of an inch "shorter, as you have explained?" Said Hall says: "It has."

I now ask you if the answer to that question is true?

A. It is not.

112 Q. Repeat as much as you can of his words, or the substance of his conversation; did or did he not mention Johnson, and how?

A. "You are doing splendidly; not only "have we got the best nipper in the world, "but we are paying all expenses and for the "new tools in progress. The company are very "much pleased with your management." Don't remember his mentioning Johnson's name in this connection.

113 Q. Did not Mr. Hall know that Johnson was the author of these improvements?

A. He did.

114 Q. How did he know that fact?

A. In conversation with me he always gave Johnson the credit, not in so many words but in substance. It always gave Johnson the credit in talking with Mr. Hall.

The testimony here quoted is flatly contradicted by all the witnesses referred to, and the whole of Adams' deposition is so contradictory, foolish and unreasonable as to make it contemptible. His testimony about models C and D, for example, is absurd. He deposes about these models as follows:

24 Q. Did you ever make any model showing your attempt to improve the nipper then made by the Interchangeable Tool Company, and when did you make it?

A. I did, in the spring of 1879; this is the model I refer to.

Model offered in evidence and marked

Complainant's Exhibit, Johnson's Exhibit D, J. E. B., Sp. Ex'r., 20 June, 1884.

25 Q. Give the dates, as nearly as you can recollect, when this model was commenced and finished.

A. I should say in the month of May, 1879.

30 Q. Was Mr. Moses C. Johnson at this time engaged in attempting to improve the nipper theretofore made by the company?

A. Not to my knowledge.

31 Q. Do you know whether or not Moses C. Johnson at or about the time you made Complainant's Exhibit D, made another model showing improvements on the Company's nipper.

A. He did afterwards; he was at work on the model at that time, but completed his model after I made mine.

Q. Please to examine the model now shown you, and state if you know what it is, and who made it, and when?

A. It is the model nipper made by Moses C. Johnson, in the month of May, or thereabout, 1879.

Model offered in evidence, and marked: Complainant's Exhibit Johnson's Exhibit C. J. E. B., Sp. Ex'r., 20 June, 1884.

33 Q. How do you know that Johnson made the model, and what was it made for?

A. I told him to make it and I saw him to work on it. I furnished him the brass for the handles.

34 Q. When you say you told him to make it, what words did you use in speaking to him?

A. I told him we must have a new model.

Then we talked of some changes—I showed him my Exhibit D, he went on and made the model, and occasionally came for sanction and direction.

35 Q. What direction did you give him; state the words?

A. I said "Take that model of mine and change those teeth that interlock the handles so as to make the interlocking with one operation or one cut."

80 Q. Mr. Thomas G. Hall to direct questions 23 and 24, answers that the company did not continue to manufacture the nipper as it appears in Complainant's Exhibit 4, because the nipper did not work satisfactorily, and that the defect consisted in the want of uniformity in the movement of the jaws. What, if any experiment was made to remove this defect, and by whom was it made, and at whose suggestion if any?

A. There were two experiments made at the shop in Hudson street by myself in the month of May, 1879. The first one was interlocking the handles by inserting several pins in each handle opposite the fulcra.

Witness is handed Defendant's Exhibit Nipper handles and after examination continues.

I should say these are the handles in which I inserted the pins by drilling holes and driving the pins in. No one suggested it to me.

The second experiment was made by me. I took two brass plates and made the handles with a projection opposite the fulcra in which I filed several teeth. This is Complainant's Exhibit D in this case. I received no suggestion in regard to it from anyone.

172 x-Q. How long had you been in the employ of the company before you put the pin in the old nipper handles?

A. Several months.

173 x-Q. About how many months?

A. I cannot tell the precise number.

174 x-Q. State approximately.

A. Three or four months, to the best of my recollection.

175 x-Q. In how many old nipper handles did you put pins opposite the fulcra, so as to form gearing between the handles?

A. Don't recollect.

176 x-Q. State approximately?

A. One pair, and perhaps several.

177 x-Q. How long had you been in the employ of the company before you put these pins in the first pair of handles to form gearing?

A. Three or four weeks to the best of my recollection.

178 x-Q. Why did you put such pins in such handles?

A. To control the action of the jaws.

179 x-Q. By way of experiment, do you mean?

A. I do.

180 x-Q. Why did you put such pins in one pair of handles?

A. I had different size nippers.

181 x-Q. In how many different size nippers did you put the pins?

A. In No. 2 and No. 4.

182 x-Q. In which size nipper did you first put the pins?

A. In No. 2.

183 x-Q. After you put the pins in the No. 2 nipper, how long was it before you put them in the No. 4 nipper?

A. Two or three months to the best of my recollection.

184 x-Q. And you put the pins in the No. 2 nipper within three or four weeks, as I understand you, after you went in the employ of the company?

A. To the best of my recollection.

185 x-Q. That would make it about the middle of May that the first pin gearing was put in the first of handles, as I understand it?

A. Somewhere about the middle of May.

186 x-Q. And was that the first step you took towards joining the handles of the Hall nipper by a gear connection?

A. I think it was.

187 x-Q. And what was the next step?

A. Made a model with gearing, one of brass plate.

188 x-Q. Do you refer now to Complainant's Exhibit D?

A. I do.

189 x-Q. How long after you put the pin gearing between the first pair of handles before you made the model, Exhibit D?

A. Very soon; cannot tell now accurately.

190 x-Q. Was it within a week, two weeks; state as near as you can?

A. It was within two weeks, to the best of my recollection.

191 x-Q. Was it within one week?

A. Cannot state.

192 x-Q. What was the next step taken towards perfecting the gear connection between the handles?

A. The making of a model connecting the handles.

193 x-Q. Do you refer to the model, Complainant's Exhibit C?

A. I do.

194 x-Q. How long after Model D was made before Model C was made?

A. I should say Model C was finished several weeks afterwards.

293 x-Q. You say you made model Complainant's Exhibit D before Johnson made the model Complainant's Exhibit C, now why do you say that model C is the first model you ever saw with the handles interlocked, with a projection in one handle working into a depression on the other, and that it is Johnson's invention?

A. It was not my answer.

294 x-Q. Question repeated?

A. I said I made model D before Johnson completed model C. Model C was the first complete model with a notch and prong connection between the handles. Model D being connected with gearing and not with a notch and prong as in model C.

295 x-Q. Do you swear now that you did not make model D before Johnson make model C?

A. I swear that I completed model D before Johnson completed model C. The making of model C occupied several weeks. Whereas model D was made in a few hours.

296 x-Q. Did you swear upon your examination in the interference case that you made model D first and gave it to Johnson, and told him how you wanted him to made model C?

A. Don't recollect at this time.

This is a fair specimen of this witness's testimony; it is evasive, uncandid and untrue. How could the making of model C occupy several weeks? Johnson says it was made between the 10th and 20th of May, 1879.

Johnson says he made his model without instruction from any one. Adams says he told him to make it. But why should Adams tell Johnson to make the model C, and direct him how to make it, if Johnson's model was commenced first? Adams forgets himself at times, and inadvertently lets out a measure of truth. He says in the testimony I have quoted that he had been in the company's employ about two or three weeks before he put the pins in the old nipper handles, and that that was the first step taken towards putting the gearing between the handles, as sworn to by Hall, Oliver and Judge, and that then followed the models. That is the order undoubtedly in which the improvement was reduced to practice, but the direction for doing it came from Hall, as sworn to by Hall, Judge and Oliver; but, according to Adams everything originated with him. According to Johnson, it all originated with him. According to Whittlesey, the lip over the spring originated with him; whereas, they were all of them appropriating, or trying to appropriate, the invention of another. Hall is the president of the company. The manufacture of this nipper is essentially his enterprise. He had worked on his plans for perfecting his nipper. Adams, Whittlesey and Johnson were employed to do the work; Oliver and Harris were furnishing capital for the company, and were men interested in an enterprise in which they had invested their money, following it up, watching it with all the anxiety and vigilance begotten of money invested.

Now, can your Honors conceive it possible that Johnston could be the inventor of these improvements on this nipper; that he could make a model of it, in the works of the company; that all the tools appertaining to the manufacture of this nipper could be made from this model and these men, the officers of the company, know absolutely nothing about it?

Nothing is easier, and in patent cases nothing is more common, than for a claimant to produce a model and swear that he made it at this time or that, and to get his fellow workmen to

swear to it; but it is not so easy to swear away circumstances like these, cut into hard steel. Johnson and his fellow workmen cannot swear away the circumstances and tools appertaining to the manufacture of this nipper and the production of the so-called model. The tools, facts and circumstances to which I have referred can not be sworn away, and they, taken in connection with the oral testimony adduced, show, as I submit, past all reasonable doubt, that Johnson's Model C is bogus.

POINT THIRD

THAT UPON THE FACTS DISCLOSED BY THE RECORD THE DEFENDANTS HAVE A LEGAL RIGHT TO USE THE INVENTION COVERED BY THE PATENT IN SUIT.

All the defendants are trustees and managers of the Interchangeable Tool Company, and in that capacity only have they, or any of them, used the invention. Each and all of them swear, that they have not made, sold or used any of the nippers for their own account, nor for any purpose, nor in any way, excepting as officers of the company for the benefit of the company, nor is there a word of evidence in the whole record to show that they have. The action can, therefore, be maintained against the defendants, if at all, only as officers of the Interchangeable Tool Company; and if the company has the legal right to manufacture the nipper, the defendant have the same right, acting as officers for the company.

Now therefore upon the facts disclosed by the record and assuming Johnson to be the first and original inventor—which is no sense conceded—it is contended:

First.—That Johnson had abandoned his invention to the public. That the company acquired an implied

license to work the patent through the *laches* of Johnson in not asserting his claim to the invention, and by his failure to object to its manufacture and sale by the company, and by his tacit consent that the company manufacture and sell the nipper for its own account.

Second.—That under Section 4899 the tool company having commenced the manufacture and sale of the nipper with the knowledge and consent of Johnson long before he applied for his patent, acquired a right to use the invention without lia ility to the patentee, or his assignee.

Now, the question here is, whether the tacit consent of Johnson, during the time he was in the employ of the company, for it to work the invention, conferred upon it, by implication, the right to work under any patent he might subsequently obtain for it, or whether his conduct did not work an absolute abandonment of any right he may have had in the invention.

It is an undisputed fact that Johnson went in the employ of the company on April 20, 1879, and remained in such employ until the first of May, 1880; that the invention he claims was made, if ever, between the tenth and twentieth of May, 1879, and that during the time he was in such employ the company manufactured and sold, he himself assisting in such manufacture, upward of *thirty thousand* of these nippers embracing the invention for which Johnson subsequently and surreptitiously obtained the patent. During this time, and to accomplish this work, the company had expended a large sum of money in the purchase of tools and in establishing a plant, and in the introduction of the nipper upon the market as a new article of manufature. All the expense and labor attending the successful establishment of a new industry, amounting to many thousands of dollars, was incurred by the company, while Johnson stood by with his mouth shut, giving the company no notice, uttering no claim to any improvement upon the nipper, for which he intended to apply for a patent, while the company was spending its money in manufacturing and

establishing the business, in the full belief that Hall was the first and original inventor of the nipper and would obtain a patent for it. The company having no notice could take no measures for protecting itself. Johnson was silent until the company had made all the outlay and done all the work necessary to establish a successful business. Then Mr. Johnson steps forward, and without saying a word to the company applies for a patent and sells it for a mere trifle to Mr. Thompson, and Mr. Thompson commences a proceeding to shut up the company's works.

Will this Court sanction that kind of proceedings? Hall, Oliver and Harris all swear that the company had no knowledge of Johnson's claim until after the patent was allowed, and Johnson himself admits that he never made any claims to the company, or uttered any protest against its use of the invention (Johnson 445 x-Q to 447) Even Johnson's bosom friend, Whittlesey, swears that the first time he heard Johnson express a determination to apply for a patent for his alleged improvement, was somewhere about the 20th of May, 1880, which was after he had left the employ of the company (see Whittlesey Interference Record 213 x-Q).

Here is the testimony of Johnson:

> 445 x-Q. During the time you was in the employ of the company, did you utter any protest to it or any of its officers against its use of the invention in controversy?
>
> A. I do not know that I did. I felt safe, knowing the fact that I was allowed two years.
>
> 446 x-Q. During the time that you was in the employ of the company, as I understand it, you made this model nipper C, and assisted in making the milling tools and milling

fixtures necessary to make the nipper, and afterwards assisted in making a great many nippers for the company. Is that correct?

A. Generally speaking, it is.

447 x-Q. Did you ever ask the company for any compensation for the use of the invention, or did you offer to sell it to them?

A. I have never offered to sell it to them, to my knowledge; don't know that I ever asked them for any compensation; knowing it to be my property, the proper opportunity for selling had not presented itself.

402 x-Q. At the time you was making this model Exhibit C, did you show it to Mr. Hall or any members of the Interchangeable Tool Company?

A. I don't remember that I ever showed anyone a piece of work upon which I had worked or was working since I have been in the business, which is twenty years or more, I mean by that, that I have not called their attention to it; they possible have seen it; probably have. I am not in the habit telling people of what I have done or am about to do.

403 x-Q. Did you call Mr. Hall's attention to the model, tell him it was your invention and that you intended to get a patent for it?

A. I don't remember that I did.

404 x-Q. Did you call the attention of any member of the Company to the model, claim it as your invention and state your intention of applying for a patent for it?

A. I don't think I called the attention of anyone to the model.

405 x-Q. How many nippers were made by the Interchangeable Tool Company from the plan of model Exhibit C during the time you were in the employ of the Company?

A. I have no means of knowing the fact.

406 x-Q. Didn't you state that about thirty thousand had been made, in your preliminary statement in this case?

A. I don't remember that I did.

407 x-Q. Well don't you know about how many were made during the time you were in the employ of the Company?

A. I do not of my own knowledge. I know there were several thousand; how many I could not say.

Upon his examination in the interference Whittlesy testified as follows:

212 x-Q. While you and Mr. Johnson were in the employ of the Interchangeable Tool Company, did you hear Mr. Johnson express a determination to apply for a patent for the invention.

A. Not while I was in the employ of the company. I left their employ about the 1st of January, 1880.

213 x-Q. When, if ever, did you first hear Mr. Johnson express a determination to apply for a patent for the invention in question.

A. Along in the summer of 1880. Somewhere in June or July.

Hall on this point testifies as follows:

101 Q. During the time that Mr. Johnson was in the employ of the Interchangeable Tool Company did you ever hear him make any claim to the invention described and illustrated in his patent, Complainant's Exhibit 2d.

A. Never.

102 Q. Did you ever hear, during the time mentioned in my last question, from any one that Mr. Johnson made any claim to the invention described and illustrated in his patent referred to in my last question.

A. Never. No, would be a proper answer.

103 Q. State, if you please, when you first heard that Mr. Johnson made any claim to any invention or any improvement upon your nipper.

A. About October, 1880.

104 Q. From whom did you first hear it?

A. Henry G. Thompson, the complainant here.

Oliver testifies as follows:

33 Q. When did you first hear that Mr. Johnson claimed to be the inventor of the improved nipper, or any part of it?

A. About the end of August or first of September, 1880; it was shortly before the company made its assignment to Mr. Healy.

34 Q. From whom did you first hear that Mr. Johnson claimed to be the inventor of any part of the nipper?

A. From Henry G. Thompson.

35 Q. Who was present when Mr. Thompson made the claim, and where was the claim made that Mr. Johnson was the inventor of the improvements in question?

A. It was at the company's office at Milford, Conn., and there were present, Messrs. Pratt and Healy, of Hartford, Mr. Thompson, Mr. Hall and myself.

36 Q. Did the announcement occasion any surprise to the officers of the Interchangeable Tool Comdany.

A. It surprised me, and Mr. Hall said it surprised him.

Harris on same point testifies as follows:

32 Q. Did you hear from Mr. Johnson or from anyone else, up to the time that Johnson left the employ of the Company, that he (Johnson) claimed to be the inventor of the whole, or any part of what is known as the Hall Nipper—by which I mean the nipper which I have shown you, marked Complainant's Exhibit 3d?

B. No, sir, I did not.

33 Q. Up to the time Mr. Johnson left the employ of the company did you hear from him, or from anyone else, that he claimed to be the inventor of the whole, or any part of any nipper manufactured by the company?

A. I did not.

34 Q. When did you first hear that Mr. Johnson claimed to be the inventor of any part of any nipper manufactured by the company?

A. Shortly after Mr. Johnson was discharged from the employ of the company.

I do not think there is a doubt but that Johnson's conduct amounted to an abandonment absolutely of any right he may have had to a patent. There is no time fixed by the statutes within which an inventor cannot abandon his invention. § 4,886 of the statutes authorizes the commissioner to grant a patent to any inventor provided "the invention has not been in pub-"lic use or on sale for more than two years prior to "to his application, *unless the same is proved to have* "*been abandoned*," other requirements of the statutes being complied with. And one of the special defences authorized by § 4,920 is that of abandonment. An inventor may put his invention in public use or on sale for any period less than two years, and yet obtain a patent for it, unless in the meantime he abandons it to the public. An inventor may work his invention as

publicly as he pleases within the time limited, but can he permit others to use it, and stand by and see it used or use it himself without asserting some right to it to shut out the presumption of abandonment? He must do something or say something to let people know that the invention is his, and that he intends to apply for a patent for it. The law does not permit him to stand by in silence while others invest their money in the manufacture of the invention and extensively introduce it in public use, acquiring a vested right and interest in it, without notice or objection on his part, and then come forward and obtains a patent for it.

Elizabeth vs. Pavement Co., 97 U. S., 134.
Kendall vs. Winsor, 21 How., 829.

Abandonment is not a question of time, but a question of fact, depending upon the acts and deeds of the inventor, whether done within six months or one year is utterly immaterial. The fact that Johnson stood by in silence permitting the company to invest its money in the establishment of a plant and in the manufacture and sale of upwards of thirty thousand of these nippers, uttering no word of protest, claim or objection raises, I confidently submit, a conclusive legal presumption that he intended to abandon his right to a patent for his so-called invention.

But whether Johnson intended to, or did in fact, abandon his pretended invention to the *public* or not, it is certain that by his conduct the Interchangeable Tool Company acquired a right to work under the patent, without accounting to Johnson or his assignee.

As to the right of the tool company under section 4,899 depends, of course, upon the construction the Court may put upon that section. In terms the section limits the right of the defendant to use the specific thing, or article manufactured before the application for the patent. But the Courts have not and, as I think, will not limit the application of the statute

to such cases only, as you Honors will readily see upon a moment's reflection. For, assume the patent to be for a process, and not for an article, or thing of any kind, and that the defendant had made a large outlay in the establishment of a plant to work such process previous to the application for a patent, it would be manifestly unjust to deprive such defendant of the benefit of this section of the statute, for it is manifest that the Legislature did not intend to discriminate between different kinds of inventions.

Take a case like the one before us, where the company had made a large outlay in the purchase of machinery and tools and in the establishment of a plant in good faith more than a year before the application for the patent, and with no notice whatever that Johnson, or anyone else, claimed any improvement or a patent for any improvement upon the nipper; can it be justly said that it is the intention of the statutes to protect the company only in the use of the nippers manufactured by it before the application for the patent? Suppose the company had made but one nipper, or suppose the invention, instead of being a nipper, were a pin, and the company, after making a large outlay for plant and machinery, had manufactured but one paper of pins, before the application for the patent? Would the statute protect it only in the enjoyment of that specific paper of pins, or would it protect it in its right to use the *invention*, and not simply the one paper of pins, anyone of which embodied the invention.

Assuming on the other hand, the invention to be of a locomotive. In such a case, the statute would protect the defendant in the use of the locomotive he had made before the patent was applied for only. The purpose of the statute is to protect the defendant against the loss of the capital invested by him in good faith in the invention before the patent is applied for, but to do that it is impossible to give every defendant the benefit of its provisions if its application be limited to its terms. The construction

placed by the Courts upon this section of the statutes and the law appertaining to implied licenses and abandonment are found in the following cases, see :

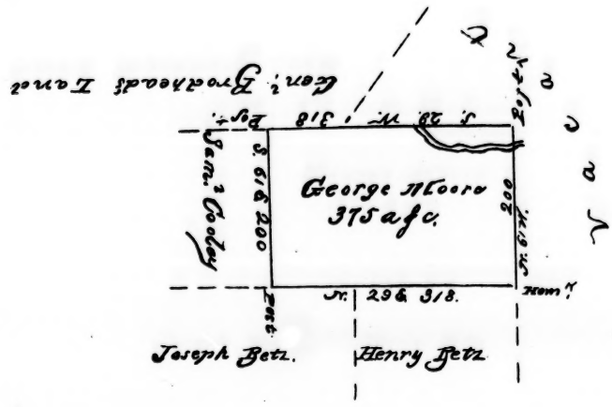
McClurg vs. Kingsland, 1 How., 202.
Pierson vs. Screw Co., 3 Story, 402.
Chabot vs. Button Hole Co., 6 Fish, 71.
Wind Mill Co., vs. Wind Mill Co., 8 Blatch., 295.
Barry vs. Crane, 22 Fed. Rep., 396.

Here is this company, manufacturing this nipper, in entire good faith, having established a plant fitted with special machinery for that purpose, and having no knowledge or information that any one besides itself had any right or claim to a patent for it, and here is Johnson, in the employ of this company, assisting as a machinist in establishing this plant and in manufacturing this nipper for upwards of one whole year, uttering no claim, or intimation that he claimed to be the inventor of any improvement upon the nipper, either to the officers of the company, or to any one else, until after he is dismissed from the employ of the company, and not then until after he has applied for, obtained and assigned his patent, for a mere pittance to the complainant here.

In its terms Section 4,899 does not protect manufacturers in the situation of these defendants. This section limits the right of the defendants to the use of the *specific* thing made by them previous to the application. But in cases like this at bar, there is no protection for defendants unless the Court, in the exercise of its equitable power, will construe the conduct of Johnson to be tantamount to a license, or abandonment.

The decree of the Court below should be affirmed with costs.

Respectfully submitted,
AMOS BROADNAX,
Counsel for Appellees.



118
No 1084.
S. M & M. Co
v.
Packer
} p. 108

In pursuance of a warrant dated 27th April 1792, Surveyed 21st November 1792 for George Moore the above described tract of Land situate on the waters of Towanda Creek in Luzerne County containing three Hundred and seventy five acres and the allowance of six p. cent for Roads &c.

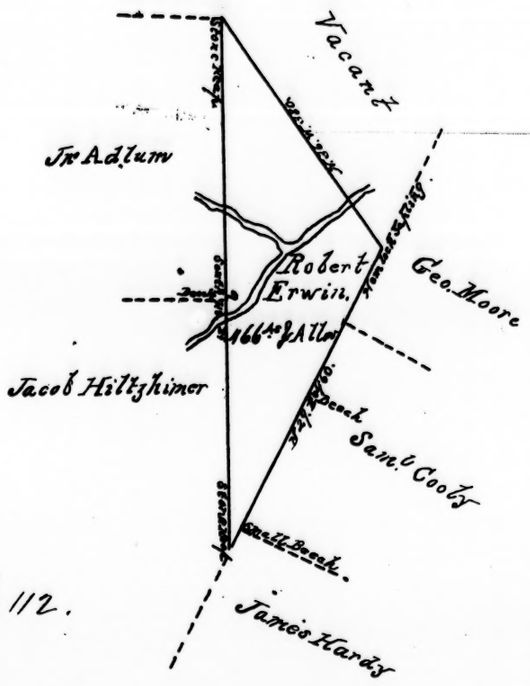
Daniel Brodhead Esq. Surveyor General } Jo J. Willis D. S.

In Testimony That the above is a copy of the original remaining on file in The Department of Internal Affairs of Pennsylvania, I have hereunto set my hand and caused the Seal of said Department to be affixed at Harrisburg, the Twentieth day of November 1878

Seal

For Wm. McCandless, Secretary of Internal Affairs
J. Simpson Africa
Dep. Secy

Exhibit A



118
No 1084.
S. M. & M. Co. } p. 112.
v.
Packer.

A Draft of a Tract of land Situate joining land of John Adlum & others in Loyalsock Township in the County of Northumberland, Surveyed on the 22nd day of November 1792 for Robert Erwin, by Virtue of his Warrant bearing date the 17th day of April 1792 Containing Four Hundred and Sixty Six Acres, with the Allowance of Six pr. cent for Roads &c.

To Daniel Brodhead Esq
Surv. Genl

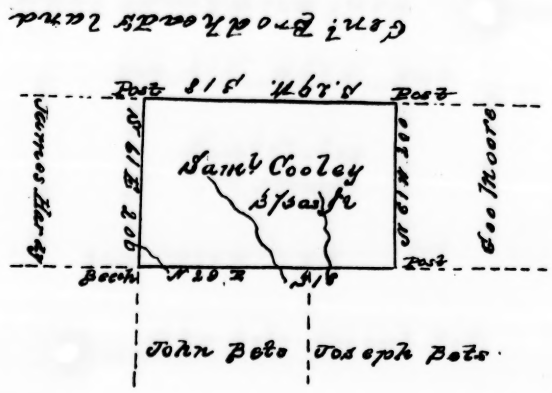
Jo. J. Wallis D. S.

In Testimony, That the above is a copy of the original remaining on file in the Department of Internal Affairs of Pennsylvania, I have hereunto set my hand and caused the seal of the said Department to be affixed, at Harrisburg, the fifteenth day of April 1885

Seal

J. Simpson Africa
Secretary of Internal Affairs.

Exhibit C. 112



No 118
S.M.&M.Co.
v.
Packer
p. 113.

In pursuance of a warrant dated 27th April 1792 Surveyed 21st November 1792 for Samuel Cooley the above described tract of land Situated on the waters of Towanda Creek in Luzerne County containing three hundred and seventy five acres and the allowance of six pcent for Roads &c.

Daniel Brodhead esq
Surveyor General

Jo. J. Wallis D S

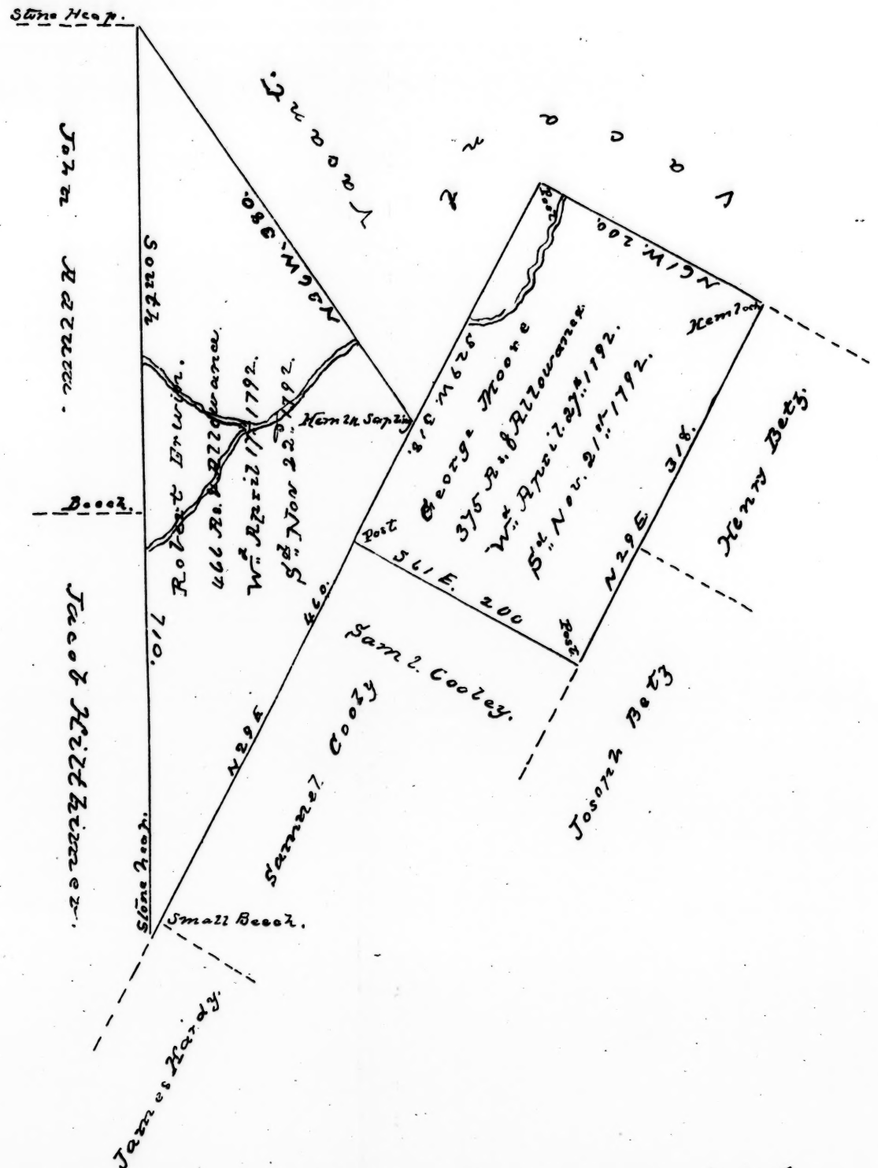
In Testimony That the above is a copy of the original remaining on file in the Department of Internal Affairs of Pennsylvania I have hereunto set my hand and caused the Seal of said Department to be affixed at Harrisburg, the 13 the — day of March 1880

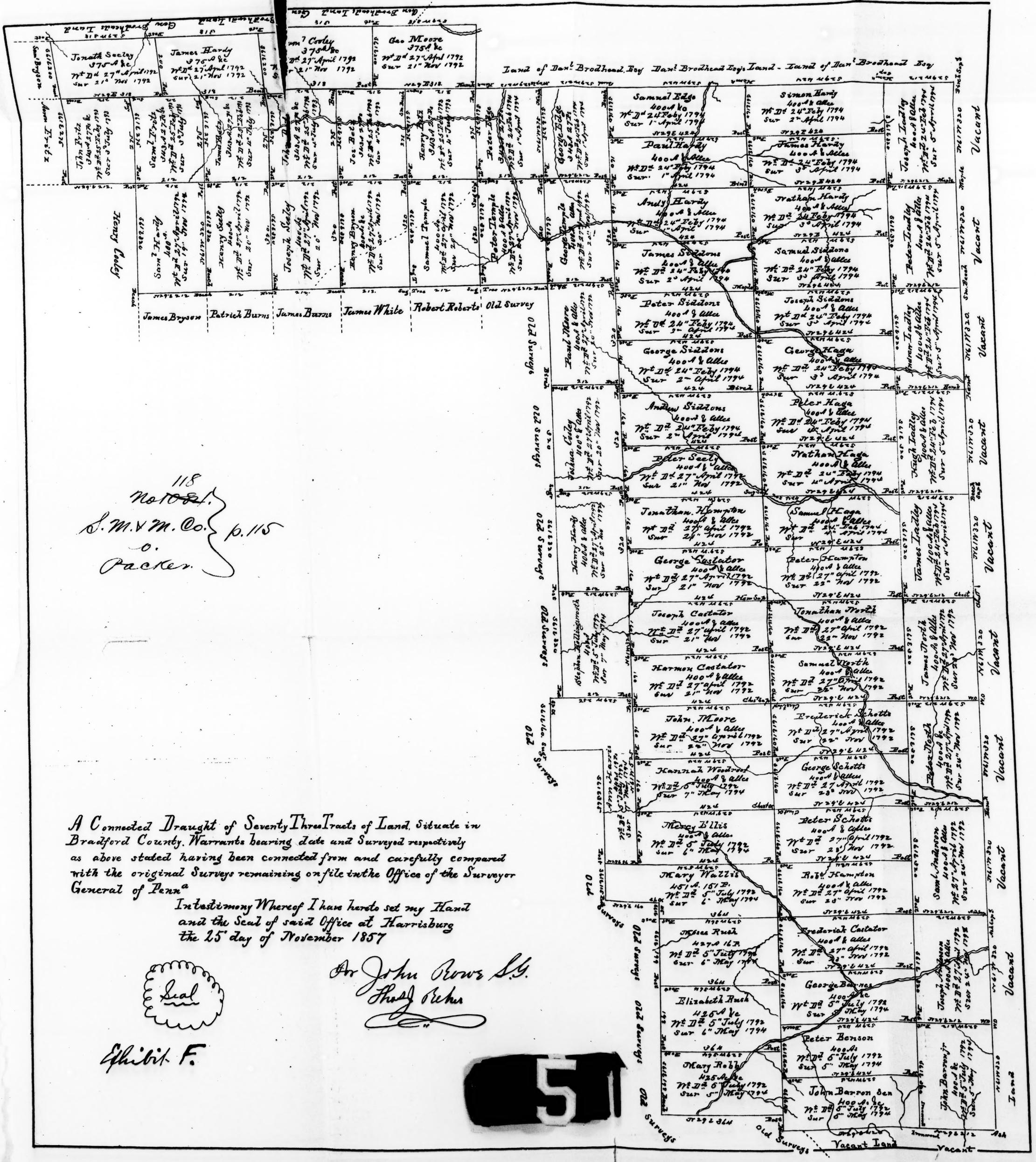
Seal

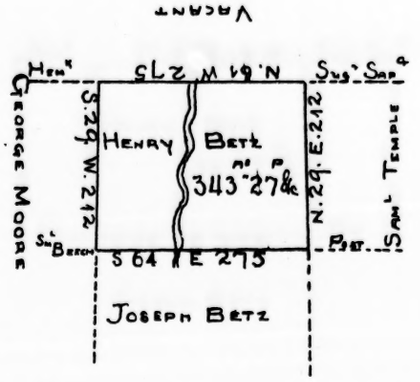
Lucius Rogers
Depy Secretary of Internal Affairs

Exhibit D 113

118
Not 84
S. M. & M. Co. } p. 114.
Packer


Stone Heap.
Jas. M. Hazzard.
South.
Boock.
Robt. Erwin.
466 A. P. Hazzard's Warrant.
Wm. Harris 11th 1792.
Sd. Nov 22. 1792.
Hamilton Sapzin
N 36 W. 380.
710.
466.
N 28 E.
Samuel Cooly
Stone Heap.
Small Beech.
James Hardy.
Vacant
Land
Vacant
Land
Vacant
Land


Land of Dan.l Brodhead Esq.
Dan.l Brodhead Esqr. Land
Land of Dan.l Brodhead Esq
Vacant
Vacant
Vacant



No. 118
S. M & M Co.
v.
Packer.
p. 116

In pursuance of a Warrant dated 25th Feby 1793 Surveyed the 4th July 1793 for Henry Betz the above described tract of land Situate on the Waters of Towanda Creek in Luzerne County — Containing three Hundred and forty three Acres twenty Seven perches and the allowance of Six Pcent for Roads &c

Jo. J. Wallis D.S.

Daniel Brodhead Esq
Surveyor General

In Testimony that the above is a copy of the original remaining on file in the Department of Internal Affairs of Pennsylvania. I have hereunto set my hand and caused the Seal of said Department to be affixed at Harrisburg. the Twenty Ninth day of November 1878

Seal

For Wm McCandless.
Secretary of Internal Affairs
J Simpson Africa
Dep Sec I.A.

Exhibit G.
116

6

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No. 1084.
S. M. & M. Co
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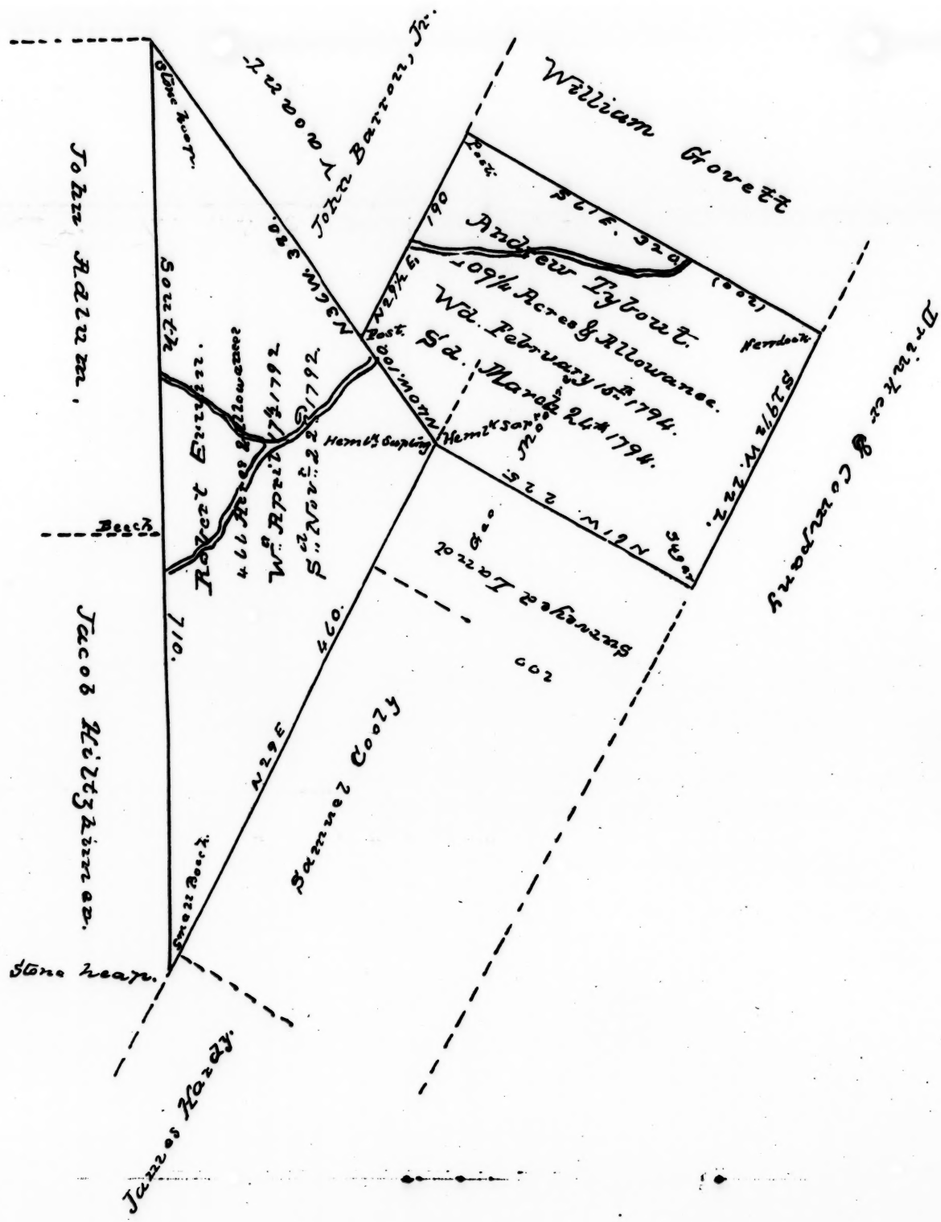
Packer
p 117.

117


William Govett
John Barton, Jr.
John Rathmell
Jacob Hillegass
Samuel Cooly
Jacobs Hardy
Andrew Tygart
109¾ Acres & Allowance.
Wd. February 15th 1794.
Sd. March 24th 1794.
Robert Chrisfield
Wm. Appel
Daniel & Company
N 61 W 222
N 29 E 460
S 61 W 222
N 61 W 222
N 29 E 460
S 29 W 460
S 61 E 222
N 29 W 460
S 61 E 222
N 61 W 222
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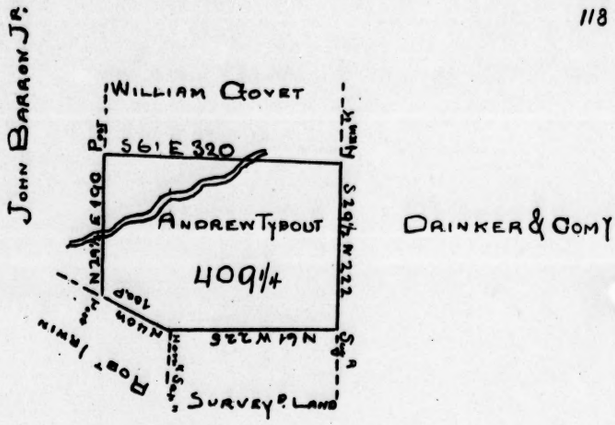
No. 118.
S. M. & M. Co
v
Packer.
} p. 118



Situate on the head Waters of Towanda Creek in Northumb^d or Luzerne County Surveyed the 24th day of March 1794 for Andrew Tybout on Warrant dated the 15th Feby 1794 Containing Four hund^d nine acres a quarter and Allowance of Six P Cent for Roads &c

Jo J. Wallis D. S.

Danl Brodhead Esq S.G^l

In Testimony That the above is a copy of the original remaining on file in the Department of Internal Affairs of Pennsylvania I have hereunto set my Hand and affixed the Seal of said Department at Harrisburg, this Ninth day of June 1877

Seal

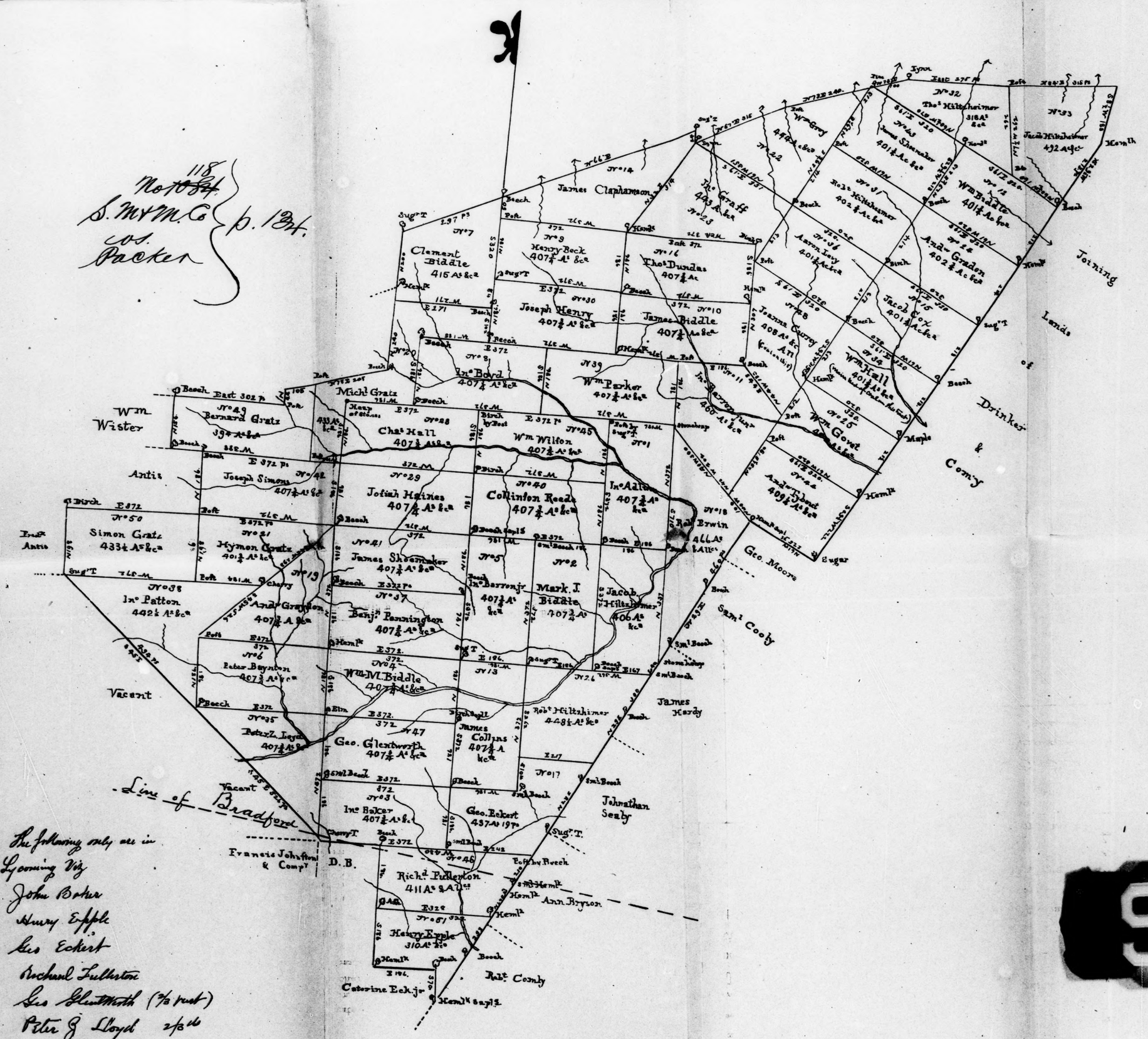
For Wm McCandless.
Secretary of Internal Affairs.

Exhibit I.

J. Simpson Africa
Dep Sec.

8

118
No 1084
S. M. & M. Co
vs
Packer
} p. 1st.



The following only are in Lycoming Viz
John Baker
Henry Epple
Geo Eckert
Richard Fullerton
Geo Glentworth (⅞ part)
Peter Z Lloyd 2/8ths

9

A DRAFT

Of 51 contiguous Tracts of Land, containing in the whole 20.986 Acres 13ps & the Allowce of 6 Acs pr Ct for Roads &c-
Situate on the waters of Tawandee Cr and Loyasock Cr (~~& partly in Loyalfock Township~~ in Bradford Cov and South part of tract on Lycoming
belonging to Robert ~~in Northumberland or Luzern County~~ (by Lycoming)
Barclay & others

State of Pennfylvania.

Survd pr Jo.J. Wallis D.S.

Copied by Chs de Krafft

(NB) The above Tracts furounded with Yellow, are situate on the waters of Tawandee Cr and warranted the 22d Jany 1793 & furvd in Sept 1793
The tracts furounded with Green, on the waters of Tawandee Cr are warranted the 15th Febry 1794 & furvd in March 1794
The other Tracts without coloured Lines, on the Waters of Tawandee & Loyalfock Crs in Loyalfock Township, are warranted the 17th April 1792 & furvd in Nov 1792.—

I do hereby certify that the above General Draft of 51 Tracts of Land in Northumberland or Luzern County and on the waters of Tawandee & Loyalfock Creeks hath been compared & found to agree with the original feparate returns of Survey, remaining in my Office, furvd & returned into the same by Jo.J. Wallis Esqr D.S. in pursuance of Warrants granted in the names as above marked—
In Testimony whereof I have hereunto put my hand & Seal of Office at Philadelphia this 15th day of Febry 1799

Daniel Brodhead Surveyor Gen of the Commonwealth of Pennsylvania

Exhibit L.

194

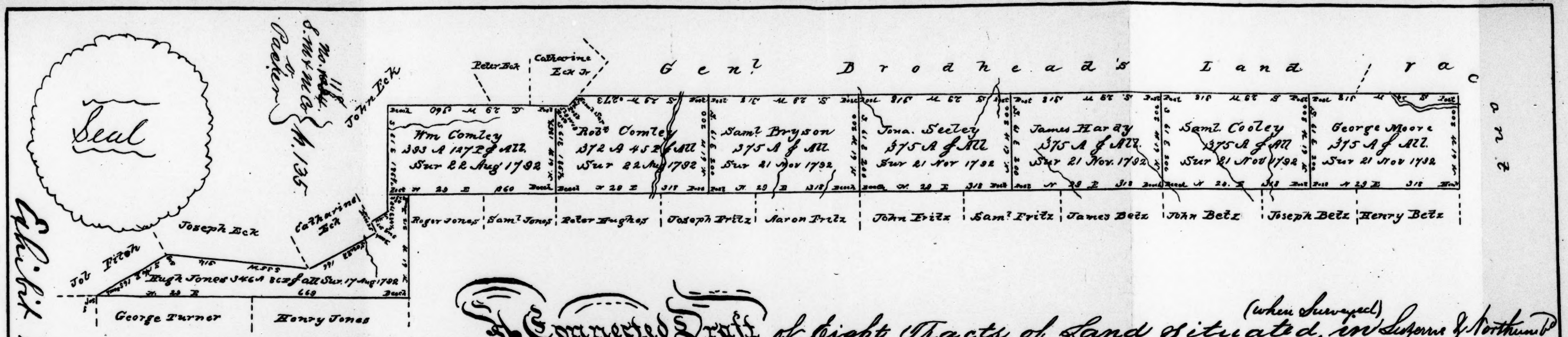


Exhibit M. 135

A Connected Draft of Eight Tracts of Land Situated, (when Surveyed) in Luzerne & Northumbd Counties. The Warrants dated 27 April 1792, and Surveys dated as above set forth. Connected from and Compared with the original drafts remaining on file in the Department of Internal Affairs of Pennsylvania.

In Testimony where of I have hereunto set my hand and caused the Seal of said Department to be affixed at Harrisburg this Twenty Eighth day of August A D 1882

For A. K. Dunkel
Secty. of Internal Affairs,
Chas. A. Glenn

Richard Fullerton

Henry Epple
310 A. & Allowance.
Warr.d 17th April 1792
Surv.d 19th Nov.r 1792

Catharine Eck Junr.
Beech 385 A. & Allowance.

Peter Eck
378 A. & Allowance.
Warr.d 23d Feb.y 1790
Surv.d 4th Oct.r 1790

John Eck
438½ A. & Allowance.

Catharine Eck
392 A. & Allowance.
Warr.d 23d Feb. 1790
Surv.d 5th Oct.r 1790

Joseph Eck
435½ A. & Allowance. 1790
Warr.d 23d Feb.y 1790
Surv.d 4th Oct.r 1790

Peter Hughs
400 A. & Allowance.
Warr.d 30th Mar. 1789
Surv.d 7th May 1789

Samuel Jones
400 A. & Allowance.
Warr.d 30th Mar. 1789
Surv.d 6th May 1789

Roger Jones
400 A. & Allowance.
Warr.d 30th Mar. 1789
Surv.d 6th May 1789

Joshua Hughs
400 A. & Allowance.
Warr.d 30th Mar. 1789
Surv.d 7th May 1789

Dennis Jones
400 A. & Allowance.
Warr.d 30th Mar. 1789
Surv.d 5th May 1789

Samuel Parker

Samuel Mallis's Claim

Vacant

Vacant

Seal

118
No 084
S. M. & M. Co
vs.
Packer
fr. 136.

A Connected Draft

(without survey) of Eleven tracts of land Situated in Lycoming & Northumb.d Counties; the Warrants and Surveys respectively bearing date as above set forth.

Connected from, and compared with the Original Drafts remaining on file in the Department of Internal Affairs of Pennsylvania

In Testimony whereof of said Department to be affixed at Harrisburg I have hereunto set my hand, and caused the Seal this Twenty Eighth day of August A.D. 1882.

For A. K. Dunkel
Secty. of Internal Affairs
Chas. A. Glenn

Exhibit N.

136

Plate O

Vacant

Andrew Tyborough

Moore 21 Nov 1792

Sugar Henry Betz

Beach

Geo Moore Surv 21 Nov 1792

Brothers Lands

Beach

Samuel Cooley Surv 21 Nov 1792

Jos Betz

Beach

Hopkins Hardy Surv 21 Nov 1792

John Betz

Beach

Hopkins Hardy Surv 21 Nov 1792

James Betz

Sugar

Jon a Seeley Surv 21 Nov 1792

John Fritz

Hemlock

Samuel Boyden Surv 21 Nov 1792

Aaron Fritz

Richard Fullerton

Henry Epple

War 17 Apr 1792
Surv 19 Nov 1792

Mich Gratz

Beech

Samuel Cooley Surv 21 Aug 1792

Jos. Fritz

Catherine Eck Surv
War. Feb 23. 1790
Surv 4 Oct 1790

Simon Gratz

Hemlock

Samuel Wallis's Claim

Peter Hughes
War 30 March 1789
Surv 7 May 1789

Peter Eck
War 23 Feb 1790
Surv 4 Oct 1790

Christian Lauman

William Cooley Surv 21 Aug 1792

Joshua Hughes
War 30 March 1789
Surv 7 May 1789

Samuel Jones
War 30 March 1789
Surv 6 May 1789

John Eck
War 23 Feb 1790
Surv 4 Oct 1790

Clement Biddle

Roger Jones
War 30 March 1789
Surv 6 May 1789

Dennis Jones
War 30 March 1789
Surv 5 May 1789

Samuel Wallis's Claim

Samuel Perkins

David Wister

Catherine Eck
War 23 Feb 1790
Surv 5 Oct 1790

Vacant Surv 17 May 1792

Samuel Wallis Claim

Vacant

Joseph Eck
War 23 Feb 1790
Surv 5 Oct 1790

Vacant

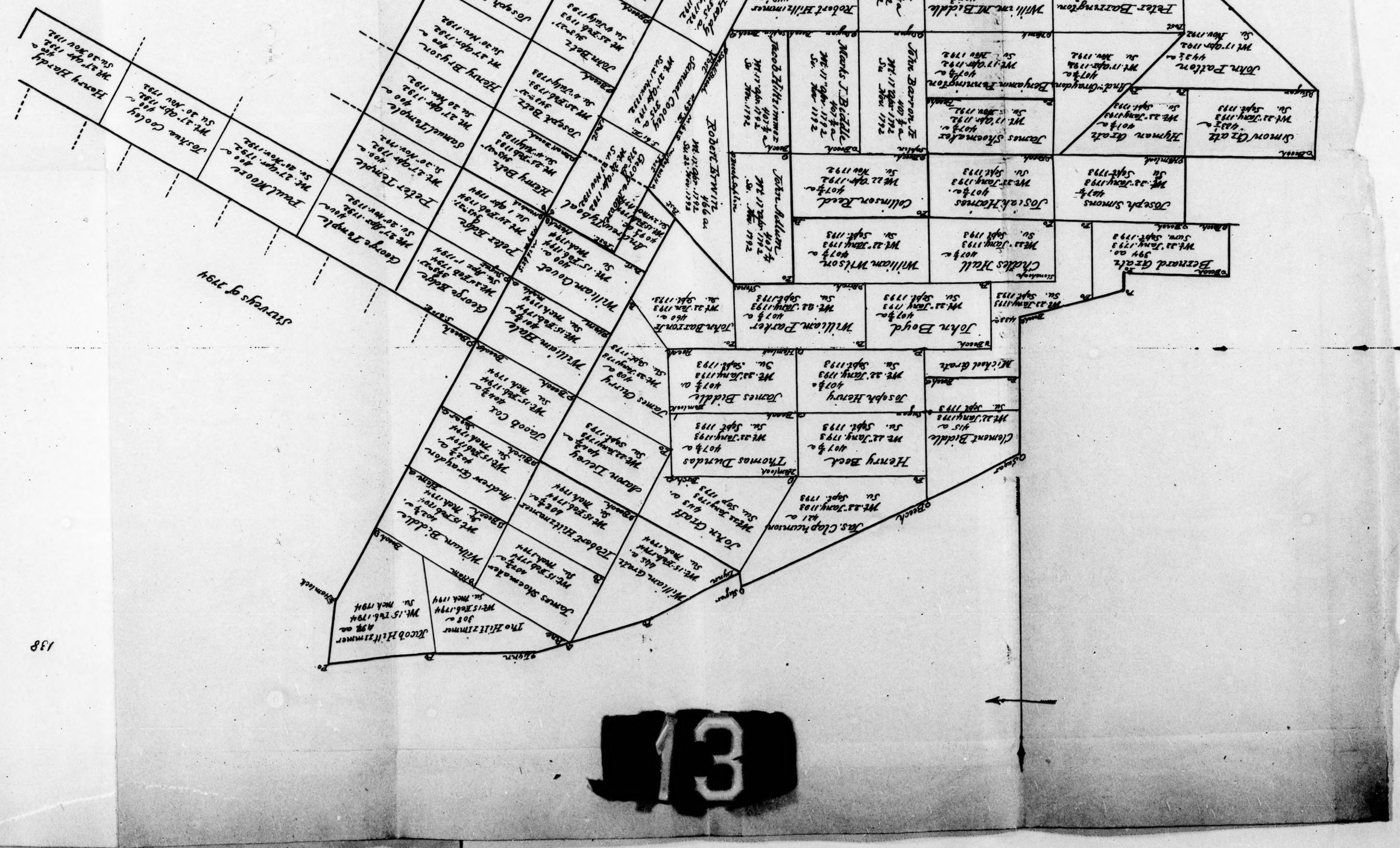
Hugh Jones

Vacant

137

Lot 9

No 1884 on
811
Smith Co.
vs
Packer
p 138


Surveys of 1794
Jacob Hiltzimmer 308 a. Mch. 1794
Jacob Hiltzimmer 438 a. Mch. 1794
Jacob Hiltzimmer 428 a. Mch. 1794
Jacob Hiltzimmer 438 a. Mch. 1794
Jacob Hiltzimmer 438 a. Mch. 1794
Jacob Hiltzimmer 438

Recd & filed
Nov. 13"
1865.

101590

PATENTED APR 5 1870

Fig. No. 1.

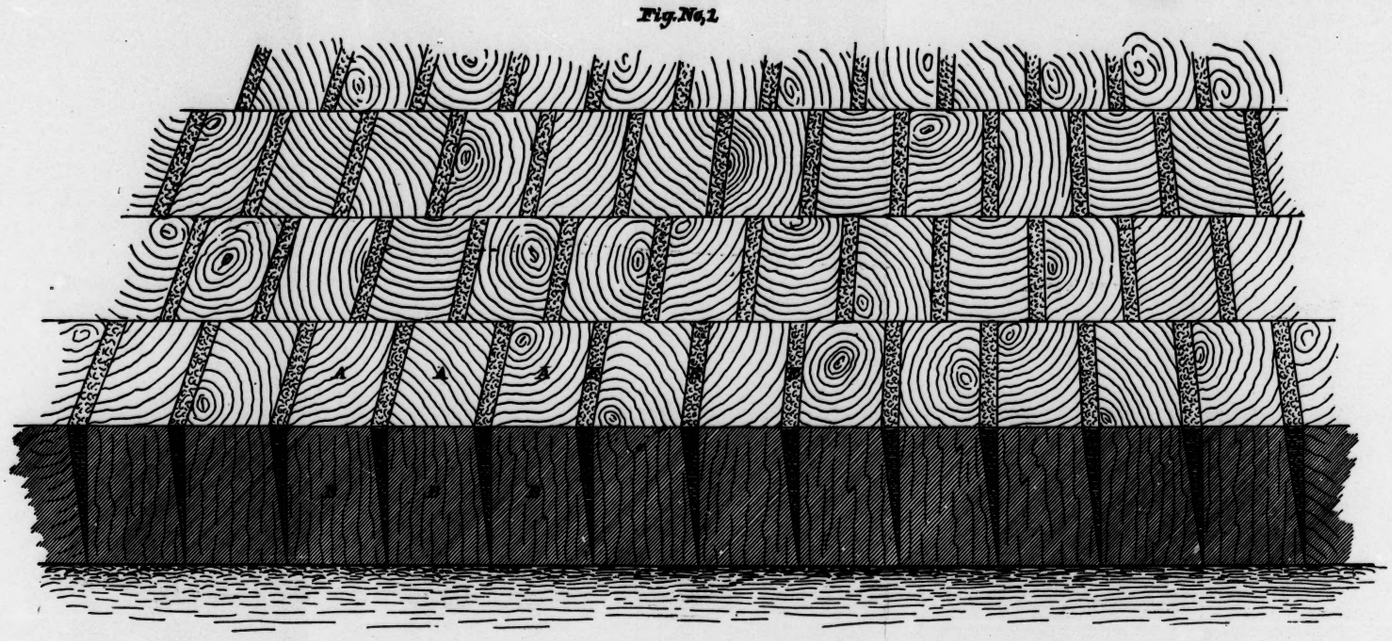


Fig. 2.

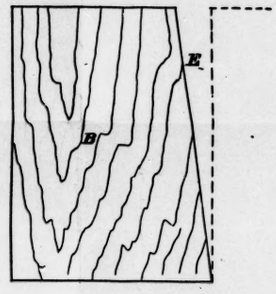


Fig. 3.

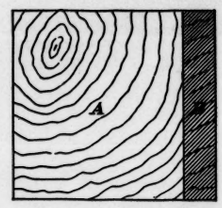
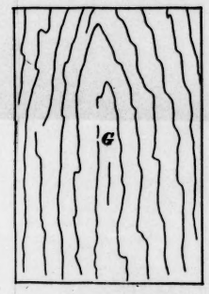


Fig. 4.



W. O. Andrews
Jno R. Brett

Turner Cowing

Turner Cowing's, Improved Wood Pavement,

Sheet 2.

T. Cowing.—Wood Pavements.

Fig. 5.

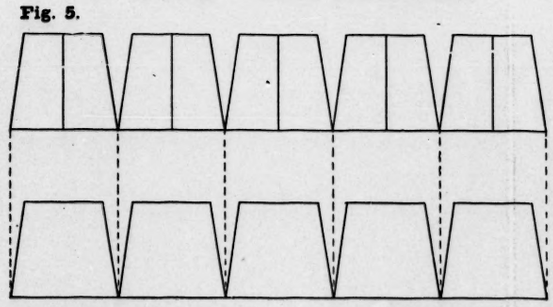


Fig. 6.

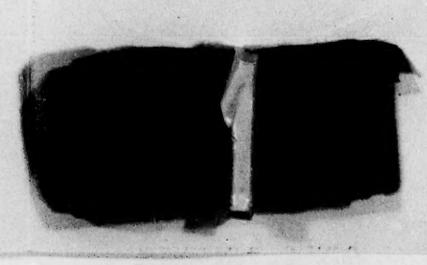
No. 137.
BROWN,
v.
D. C.
} *p.* 170.

TURNER COWING,
By his Attorney, J. DENNIS, Jr.

Witnesses:

WILLIAM DENNIS.

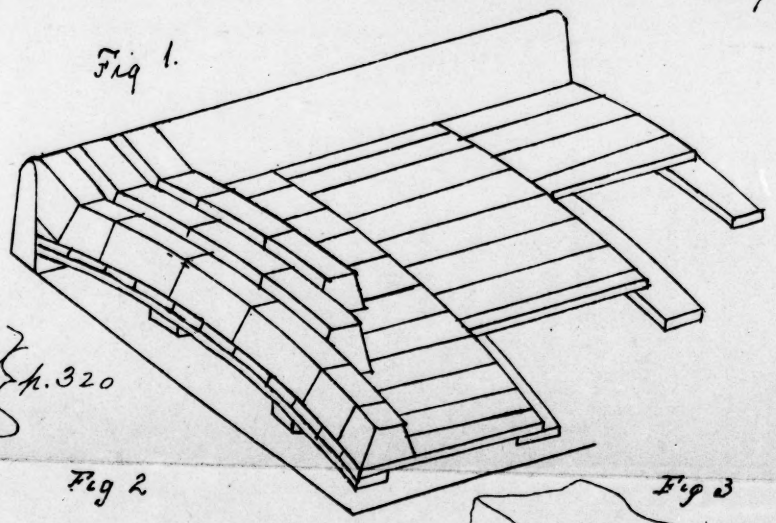
WILLIAM H. DENNIS.



W. H. Ballard. 320

94 Paving
[110] Wood Pavements 2490 Improvement in Street pavements.

Fig 1.



no. 137.
Brower
v.
D. C.
p. 320

Fig 2

Fig 3

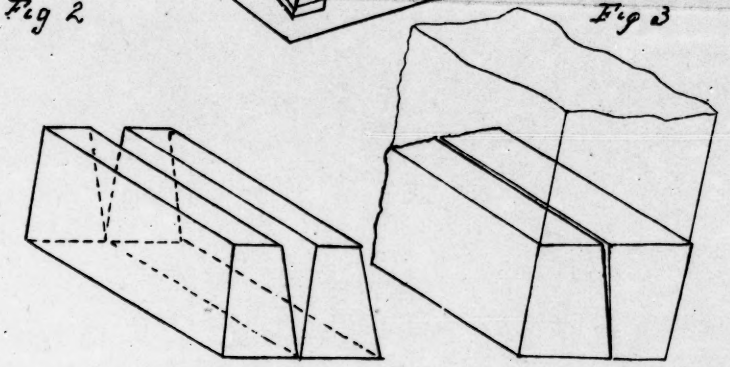
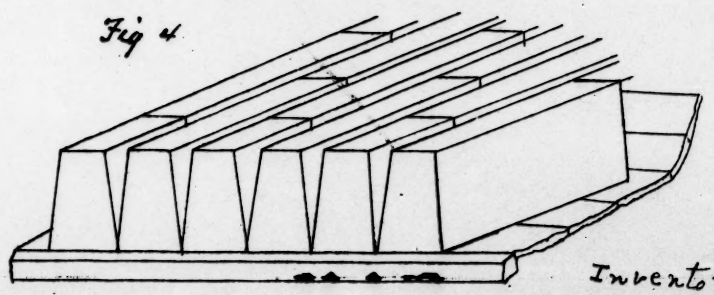


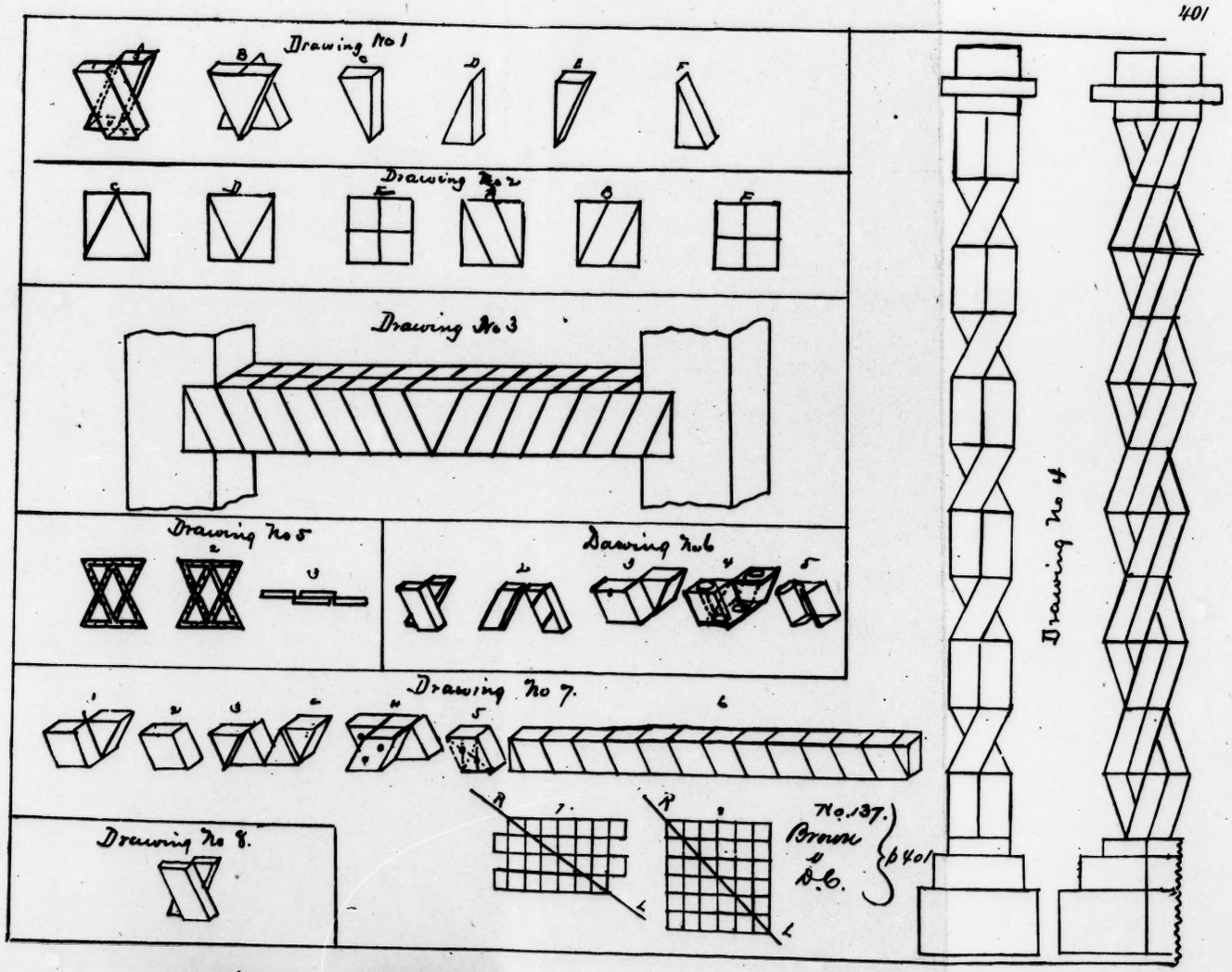
Fig 4



Witnesses
Samuel Smith
J. E. M. Bowen

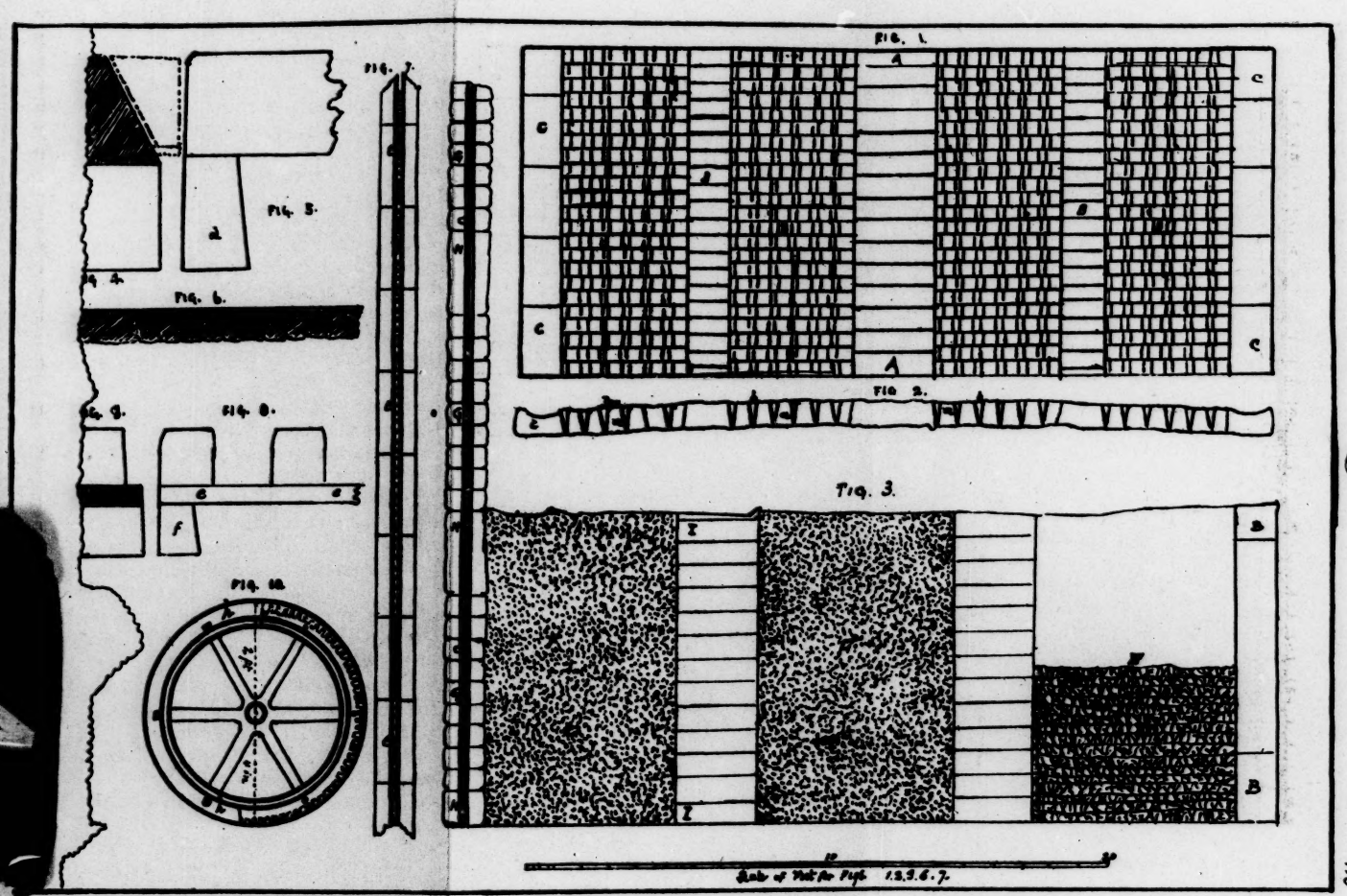
Inventor
William H. Ballard
by Alex. A. C. Klaucke & Co.
attorneys

2


Drawing No 1
Drawing No 2
Drawing No 3
Drawing No 5
Drawing No 6
Drawing No 7.
Drawing No 8.
Drawing No 4
No. 137.
Brown
D.C.
p 401

3

No. 137
Brown
U.C.
p. 416



No. 137.
Brown
Do
} N. 426

FIG. 1.

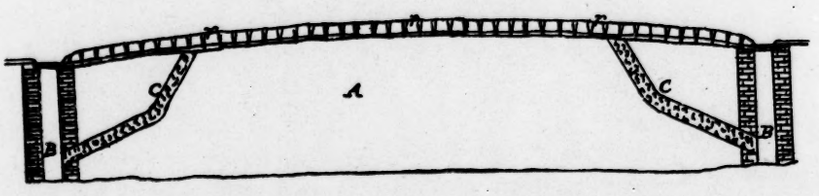


FIG. 2.

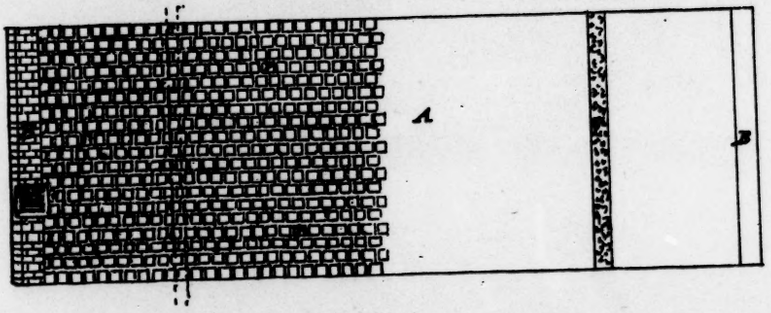
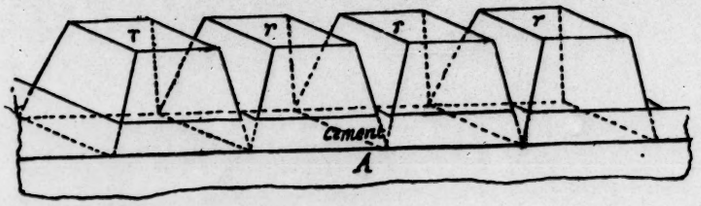


FIG. 3



5

No. 186.
Thompson
v.
Hall et al
} p. 138

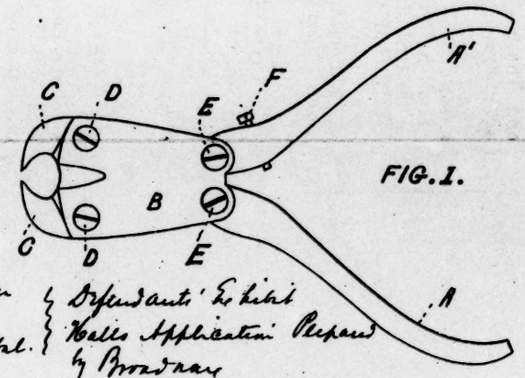


FIG. 1.

Thompson
v.
Hall et al.
} Defendants' Exhibit
Hall's Application Reissued
by Broadway
J. E. B. Sp. Ex: 29 Mar 1884

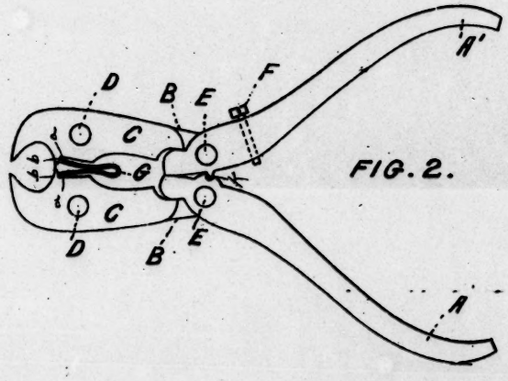


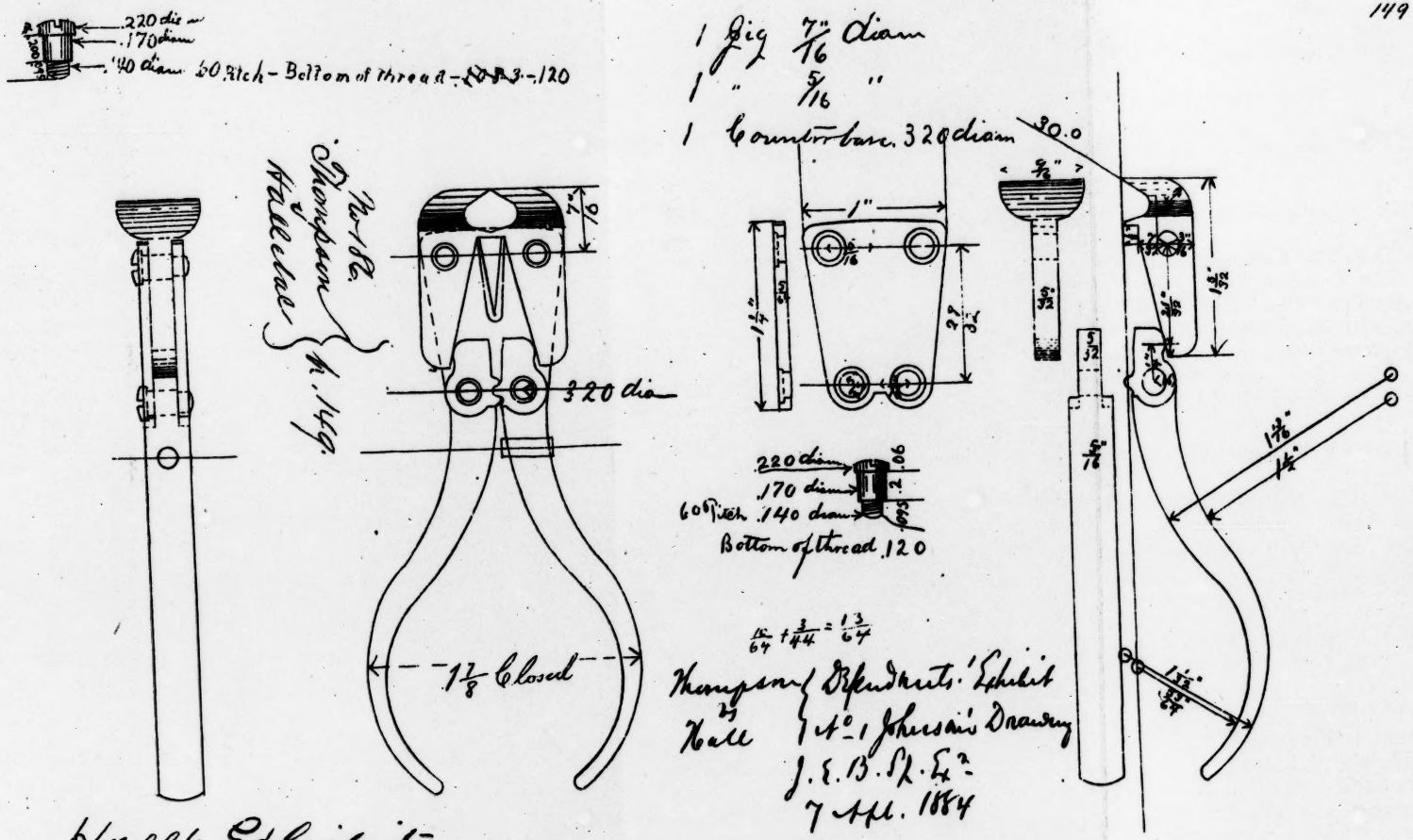
FIG. 2.

WITNESSES.

INVENTOR.

Hall's Exhibit No. 15.
Oct. 12. 1881. J. E. B.

6



Hall's Exhibit No 1 W.H.B. Aug. 10th 1881

No 1 Nipper 4 in. long to cut 1/16 wire
M.C.J.

M. Hall - 20.2.80.

No 186.
Thompson
v.
Hall et al.
} p. 176

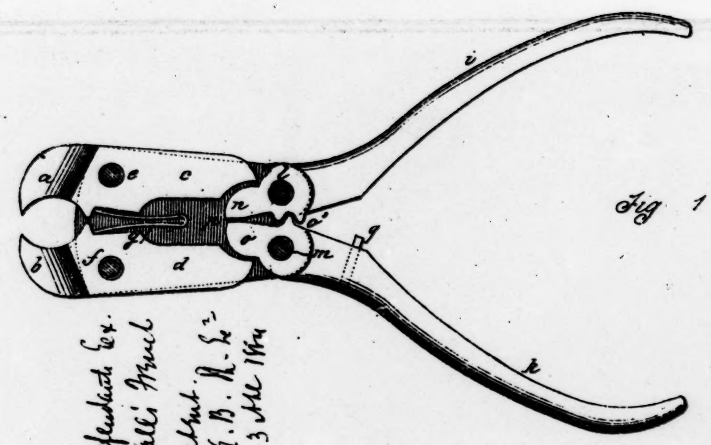


Fig 1

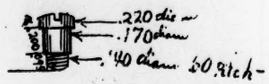
Montgomery Attachment Cox.
Hall's Improved
Patent. R. S. C.
J. S. B. R. S.
3 Mar 1884

Fig 2

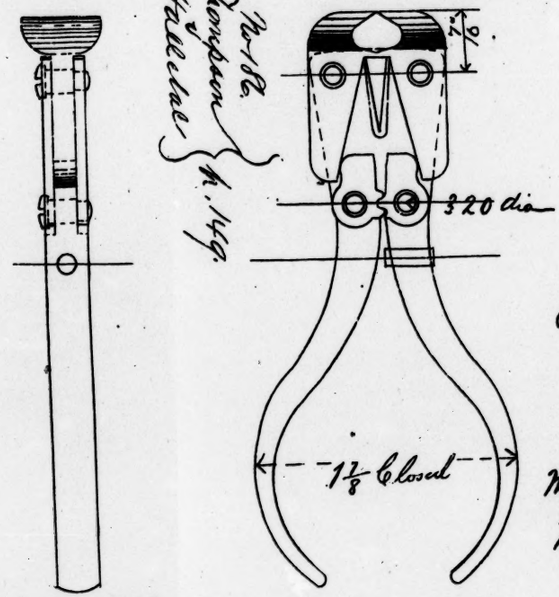
PAR PROCURATION DE M. C. Hall
PARIS, LE 20 Février 1880
A. Demol

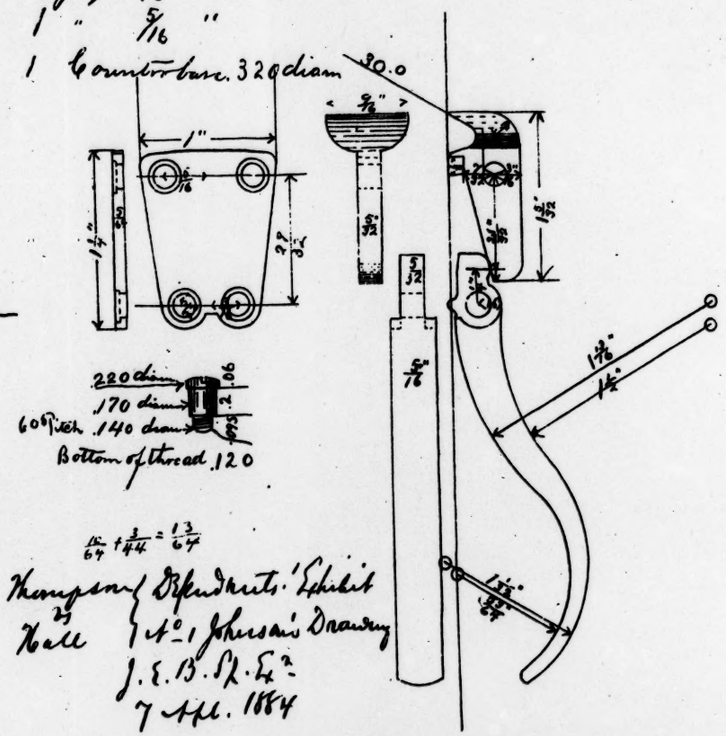
Echelle Variable

Hall Exhibit
No 11. Stipulation 5/19/86
M.N.H.



1 Jig 7" diam
1 " 5/16 "
1 Counterbore .320 diam





Hall's Exhibit
No 1 W.H.B. Aug 10th 1884

Thompson Defendants' Exhibit
Hall No 1 Johnson's Drawing
J.E.B. Sept 4th
7 Sept. 1884

No 1 Nipper 4 in. long to cut 1/16 wire
M.C.J.

DUPLICATA

Mr Hall - 20.2.80.

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Thompson
v.
Hall et al.
p. 176

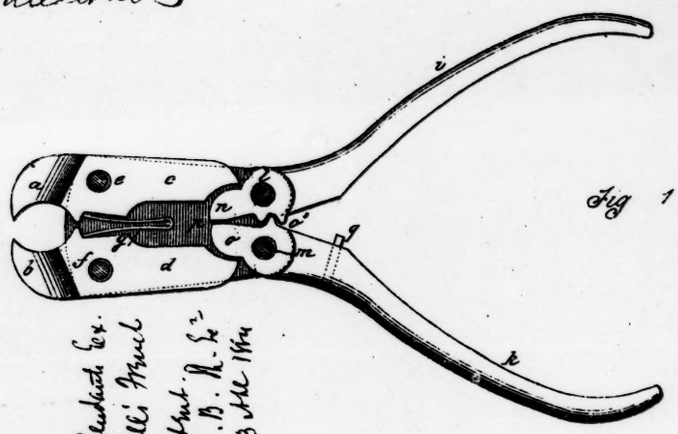
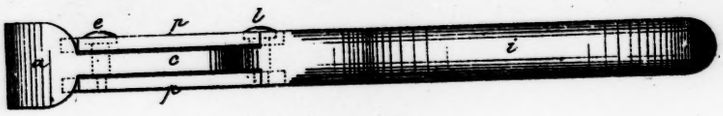


Fig 1

Thompson v. Hall } Defendants Ex. Hall's Trust Patent J. E. B. R. Sc. 3 Abl 1880

Fig 2



PAR PROCURATION DE M. Hall
PARIS, LE 20 Février 1880
A. Desnoz

Echelle Variable

Hall's Exhibit
No 11. September 5th 1881
W.H.B.